

VV	VV	MM	MM	SSSSSSSS	VV	VV	EEEEEEEEE	CCCCCCC	TTTTTTTTT	000000	RRRRRRR
VV	VV	MM	MM	SSSSSSSS	VV	VV	EE	CCCCCCC	TTTTTTTTT	000000	RRRRRRR
VV	VV	MMMM	MMMM	SS	VV	VV	EE	CC	TT	00	RR
VV	VV	MMMM	MMMM	SS	VV	VV	EE	CC	TT	00	RR
VV	VV	MM	MM	SS	VV	VV	EE	CC	TT	00	RR
VV	VV	MM	MM	SS	VV	VV	EE	CC	TT	00	RR
VV	VV	MM	MM	SSSSSS	VV	VV	EEEEE	CC	TT	00	RRRRRRRR
VV	VV	MM	MM	SSSSSS	VV	VV	EEEEE	CC	TT	00	RRRRRRRR
VV	VV	MM	MM	SS	VV	VV	EE	CC	TT	00	RR RR
VV	VV	MM	MM	SS	VV	VV	EE	CC	TT	00	RR RR
VV	VV	MM	MM	SS	VV	VV	EE	CC	TT	00	RR RR
VV	VV	MM	MM	SSSSSS	VV	VV	EEEEE	CC	TT	00	RRRRRRRR
VV	VV	MM	MM	SSSSSS	VV	VV	EEEEE	CC	TT	00	RRRRRRRR
VV	VV	MM	MM	SS	VV	VV	EE	CC	TT	00	RR RR
VV	VV	MM	MM	SS	VV	VV	EE	CC	TT	00	RR RR
VV	VV	MM	MM	SSSSSSSS	VV	VV	EEEEE	CCCCCCC	TT	000000	RRRRRRR
VV	VV	MM	MM	SSSSSSSS	VV	VV	EEEEE	CCCCCCC	TT	0C0000	RR RR

LL		SSSSSSSS
LL		SSSSSSSS
LL		SS
LL		SS
LL		SS
LL		SSSSSS
LL		SSSSSS
LL		SS
LL		SS
LL		SS
LLLLLLLLL		SSSSSSSS
LLLLLLLLL		SSSSSSSS

(34) 3014
(35) 3061

MTHSSAB ALOG - Table for ALOG routines
MTHSSAB ATAN - Table for ATAN routines

```
0000 1 .TITLE VMS$VECTOR - Define entry vectors for VMSRTL
0000 2 :IDENT /4-003/ ; File: VMSVECTOR.MAR Edit: MDL4003
0000 3
0000 4
0000 5 ****
0000 6 *
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0000 24 *
0000 25 *
0000 26 ****
0000 27
0000 28
0000 29 .FACILITY: VAX/VMS Run-Time Library
0000 30 ++
0000 31 .ABSTRACT:
0000 32     This module contains the entry vector for the shareable image
0000 33     VMSRTL.EXE. VMSRTL is now only a "stub" that references procedures
0000 34     in LIBRTL, MTHRTL, BASRTL, COBRTL and FORRTL.
0000 35 --
0000 36
0000 37
0000 38 .VERSION: 1
0000 39
0000 40 .Revision History:
0000 41
0000 42 ****
0000 43 *
0000 44 * WARNING!!!
0000 45 *
0000 46 * The order or contents of the VMSRTL vector must never change!
0000 47 *
0000 48 ****
0000 49
0000 50 .4-001 - Modified from ALLGBL.MAR to only produce vector declarations.
0000 51     SBL 11-May-1983
0000 52 .4-002 - Add MTH$AB ALOG and MTH$AB_ATAN table copies to end. SBL 20-May-1983
0000 53 .4-003 - Add OLDENTRY macro for obsolete entry points. MDL 26-Sep-1983
0000 54 ;--
```

0000 56 :+
0000 57 | NOTE: This module contains many comments which are now of only historical
0000 58 | significance. The image VMSRTL mostly consists of vectored entry
0000 59 | points that refer to procedures in other shareable images. However,
0000 60 | a few data tables that were in VMSRTL remain since they cannot be
0000 61 | revectored.
0000 62 :-
0000 63
0000 64 :+
0000 65 | Define macro MAC to generate vector entries.
0000 66
0000 67 | call: MAC VEC_TYPE, VEC_AREA, SYMBOL, MASK
0000 68
0000 69 | where VEC_TYPE is: CALL - call entry point transfer vector
0000 70 | JSB - JSB entry point transfer vector
0000 71 | NOVECT - do not have a transfer vector
0000 72 | SYM - this is a symbol, not an entry point
0000 73 | DATA - this is data, kept in the vector
0000 74 | FUTURE - this is a proposed entry point, not yet
0000 75 | implemented, but space reserved.
0000 76 | VEC_AREA is: FOR - FORTRAN entry points
0000 77 | LIB - Library entry points
0000 78 | MTH - Math library entry points
0000 79 | STR - String library entry points
0000 80 | OTS - Language independent entry points
0000 81 | BAS - BASIC-PLUS-2 entry points
0000 82 | COB - COBOL
0000 83
0000 84 | Note: VEC_AREA is ignored
0000 85
0000 86 | SYMBOL is: any entry point symbol
0000 87 | MASK is: optional entry mask if not same as SYMBOL
0000 88
0000 89 | Each entry vector is 8 bytes long and contains a 2 byte mask and
0000 90 | a 6 byte JMP instruction (for CALLs) or
0000 91 | a 6 byte JMP plus 2 filler bytes for JSBs.
0000 92
0000 93 :-
0000 94

```
0000  96 .MACRO MAC      VEC_TYPE, VEC_AREA, SYMBOL, MASK
0000  97 .IF IDN      VEC_TYPE, JSB
0000  98 $$'SYMBOL'::
0000  99   JMP   G^SYMBOL
0000 100   BYTE  0,0          ; branch to JSB routine
0000 101 .ENDC
0000 102
0000 103 .IF IDN      VEC_TYPE, CALL
0000 104 $$'SYMBOL'::
0000 105   .IF B MASK
0000 106     .MASK SYMBOL
0000 107   .IFF
0000 108     .MASK MASK          ; get mask from other name
0000 109   .ENDC
0000 110   JMP   G^SYMBOL+2      ; branch to CALL+2 routine
0000 111 .ENDC
0000 112
0000 113 .IF IDN      VEC_TYPE, FUTURE      ; Reserve space for future vector?
0000 114   BYTE  0,0,0,0,0,0,0,0      ; leave 8 bytes
0000 115 .ENDC
0000 116
0000 117 .IF IDN      VEC_TYPE, DATA
0000 118 $$'SYMBOL' V:: .ADDRESS SYMBOL-
0000 119   .BLKL  1          ; from non-shared routine. Has format:
0000 120   .ENDC
0000 121   .ADDRESS table_name-.
0000 122   .BLKL  1
0000 123
0000 124 .ENDM
0000 125
0000 126 .MACRO OLDDENTRY      SYMBOL
0000 127 $$'SYMBOL'::
0000 128 .ENDM
0000 129
0000 130   PSECT $VMS$VECTOR PIC,USR,CON,REL,LCL,SHR,EXE,RD,NOWRT,PAGE
0000 131 RTL$START:
0000 132
```

0000 134 ;+
0000 135 ; FORTRAN compatibility routines - do not VECTOR
0000 136 ;-
0000 137
0000 138
0000 139 : MODULE:COM\$ASSIGN
0000 140 MAC NOVECT COM ASSIGN
0000 141
0000 142 : MODULE:COM\$CLOSE
0000 143 MAC NOVECT COM CLOSE
0000 144
0000 145 : MODULE:COM\$ERRSET
0000 146 MAC NOVECT COM ERRSET
0000 147
0000 148 : MODULE:COM\$ERRTST
0000 149 MAC NOVECT COM ERRTST
0000 150
0000 151 : MODULE:COM\$FDBSET
0000 152 MAC NOVECT COM FDBSET
0000 153
0000 154 : MODULE:COM\$IRAD50
0000 155 MAC NOVECT COM IRAD50
0000 156
0000 157 : MODULE:COM\$R50ASC
0000 158 MAC NOVECT COM R50ASC
0000 159
0000 160 : MODULE:COM\$RAD50
0000 161 MAC NOVECT COM RAD50
0000 162
0000 163 : MODULE:COM\$USEREX
0000 164 MAC NOVECT COM USEREX

```

0000 166 :+
0000 167 : FORTRAN entry points
0000 168 : Put most frequently used FORTRAN entry points together first,
0000 169 : ie. I/O and OPEN and CLOSE.
0000 170 :-
0000 171
0000 172 : MODULE:FOR$CLOSE
0000 173     MAC   CALL    FOR    FOR$CLOSE
0008 174 : MODULE:FOR$ENTRY
0008 175     MAC   CALL    FOR    FOR$DECODE_MF  FOR$$IO_BEG
0010 176     MAC   CALL    FOR    FOR$DECODE_MO  FOR$$IO_BEG
0018 178     MAC   CALL    FOR    FOR$ENCODE_MF  FOR$$IO_BEG
0020 179     MAC   CALL    FOR    FOR$ENCODE_MO  FOR$$IO_BEG
0028 180
0028 181     MAC   CALL    FOR    FOR$READ_KF  FOR$$IO_BEG
0030 182     MAC   CALL    FOR    FOR$READ_KO  FOR$$IO_BEG
0038 183
0038 184     MAC   CALL    FOR    FOR$READ_DF  FOR$$IO_BEG
0040 185     MAC   CALL    FOR    FOR$READ_DO  FOR$$IO_BEG
0048 186     MAC   CALL    FOR    FOR$READ_DU  FOR$$IO_BEG
0050 187     MAC   CALL    FOR    FOR$READ_SF  FOR$$IO_BEG
0058 188     MAC   CALL    FOR    FOR$READ_SL  FOR$$IO_BEG
0060 189
0060 190     MAC   CALL    FOR    FOR$READ_SO  FOR$$IO_BEG
0068 191     MAC   CALL    FOR    FOR$READ_SU  FOR$$IO_BEG
0070 192     MAC   CALL    FOR    FOR$WRITE_DF  FOR$$IO_BEG
0078 193     MAC   CALL    FOR    FOR$WRITE_DO  FOR$$IO_BEG
0080 194
0080 195     MAC   CALL    FOR    FOR$WRITE_DU  FOR$$IO_BEG
0088 196     MAC   CALL    FOR    FOR$WRITE_SF  FOR$$IO_BEG
0090 197     MAC   CALL    FOR    FOR$WRITE_SL  FOR$$IO_BEG
0098 198     MAC   CALL    FOR    FOR$WRITE_SO  FOR$$IO_BEG
00A0 199
00A0 200     MAC   CALL    FOR    FOR$WRITE_SU  FOR$$IO_BEG
00A8 201
00A8 202 : MODULE:FOR$IO_END
00A8 203     MAC   CALL    FOR    FOR$IO_END
00B0 204
00B0 205 : MODULE:FOR$IO_ELEM
00B0 206
00B0 207     MAC   CALL    FOR    FOR$IO_F_R
00B8 208     MAC   CALL    FOR    FOR$IO_F_V
00C0 209     MAC   CALL    FOR    FOR$IO_D_R
00C8 210     MAC   CALL    FOR    FOR$IO_D_V
00D0 211
00D0 212     MAC   CALL    FOR    FOR$IO_L_R
00D8 213     MAC   CALL    FOR    FOR$IO_L_V
00E0 214     MAC   CALL    FOR    FOR$IO_B_R
00E8 215     MAC   CALL    FOR    FOR$IO_B_V
00F0 216
00F0 217     MAC   CALL    FOR    FOR$IO_T_DS
00F8 218
00F8 219     MAC   CALL    FOR    FOR$IO_W_R
0100 220     MAC   CALL    FOR    FOR$IO_W_V
0108 221     MAC   CALL    FOR    FOR$IO_G_R
0110 222     MAC   CALL    FOR    FOR$IO_G_V

```

```

0118 223      MAC   CALL   FOR    FOR$IO_H_R
0120 224      MAC   CALL   FOR    FOR$IO_H_V
0128 225      MAC   CALL   FOR    FOR$IO_DC_R
0128 226      MAC   CALL   FOR    FOR$IO_GC_R
0130 227      MAC   CALL   FOR    FOR$IO_T_V_DS
0138 228 :     MAC   CALL   FOR    FOR$IO_FC_R
0138 229      MAC   CALL   FOR    FOR$IO_FC_V
0140 230      MAC   CALL   FOR    FOR$IO_LU_R
0148 231      MAC   CALL   FOR    FOR$IO_LU_V
0150 232      MAC   CALL   FOR    FOR$IO_WU_R
0158 233      MAC   CALL   FOR    FOR$IO_WU_V
0160 234      MAC   CALL   FOR    FOR$IO_X_DA
0168 235      MAC   CALL   FOR    FOR$IO_X_V
0170 236      MAC   CALL   FOR    FOR$IO_X_DA
0178 237      : MODULE:FOR$OPEN
0178 238      MAC   CALL   FOR    FOR$OPEN
0180 240
0180 241 :+
0180 242 : Rest of FOR$ entries alphabetical order
0180 243 :-
0180 244
0180 245 : MODULE:FOR$BACKSPACE
0180 246      MAC   CALL   FOR    FOR$BACKSPACE
0188 247
0188 248 : MODULE:FOR$BITOPS
0188 249      MAC   NOVECT FOR    FOR$IMVBITS
0188 250      MAC   NOVECT FOR    FOR$JMVBITS
0188 251      MAC   NOVECT FOR    FOR$IIBITS
0188 252      MAC   NOVECT FOR    FOR$JIBITS
0188 253      MAC   NOVECT FOR    FOR$IIHFTC
0188 254      MAC   NOVECT FOR    FOR$JISHFTC
0188 255      MAC   NOVECT FOR    FOR$BITEST
0188 256      MAC   NOVECT FOR    FOR$BJTEST
0188 257      MAC   NOVECT FOR    FOR$IIBSET
0188 258      MAC   NOVECT FOR    FOR$JIBSET
0188 259      MAC   NOVECT FOR    FOR$IIBCLR
0188 260      MAC   NOVECT FOR    FOR$JIBCLR
0188 261
0188 262 : MODULE:OT$SCVTLT ; New entry points at end
0188 263      MAC   CALL   FOR    FOR$CNV_OUT_I
0190 264      MAC   CALL   FOR    FOR$CNV_OUT_L
0198 265      MAC   CALL   FOR    FOR$CNV_OUT_O
01A0 266      MAC   CALL   FOR    FOR$CNV_OUT_Z
01A8 267
01A8 268 : MODULE FOR$CVTRT - replaces FOR$CNV_OUT
01A8 269      OLDENTRY FOR    FOR$CNV_OUT_D
01A8 270      MAC   CALL   FOR    FOR$CVT_D_TD
01B0 271      OLDENTRY FOR    FOR$CNV_OUT_E
01B0 272      MAC   CALL   FOR    FOR$CVT_D_TE
01B8 273      OLDENTRY FOR    FOR$CNV_OUT_F
01B8 274      MAC   CALL   FOR    FOR$CVT_D_TF
01C0 275      OLDENTRY FOR    FOR$CNV_OUT_G
01C0 276      MAC   CALL   FOR    FOR$CVT_D_TG
01C8 277
01C8 278 : MODULE:FOR$DATE
01C8 279      MAC   NOVECT FOR    FOR$DATE

```

01C8	280			
01C8	281	: MODULE:FOR\$DATE_T_DS		
01C8	282	MAC NOVECT FOR	FOR\$DATE_T_DS	
01C8	283			
01C8	284	: MODULE:FOR\$DEFINE_FILE		
01C8	285	MAC CALL FOR	FOR\$DEF_FILE	
01D0	286	MAC CALL FOR	FOR\$DEF_FILE_W	
01D8	287			
01D8	288	: MOUDLE FOR\$SENDFILE		
01D8	289	MAC CALL FOR	FOR\$SENDFILE	
01E0	290			
01E0	291	: MODULE:FOR\$ENODEF		
01E0	292	MAC SYM FOR	FOR\$K_ADJARRDIM	
01E0	293	MAC SYM FOR	FOR\$K_ARRREFOUT	
01E0	294	MAC SYM FOR	FOR\$K_ATTACCNON	
01E0	295	MAC SYM FOR	FOR\$K_BACERR	
01E0	296			
01E0	297	MAC SYM FOR	FOR\$K_CLOERR	
01E0	298	MAC SYM FOR	FOR\$K_DECSTROVE	
01E0	299	MAC SYM FOR	FOR\$K_DELERR	
01E0	300	MAC SYM FOR	FOR\$K_DUPFILSPE	
01E0	301	MAC SYM FOR	FOR\$K_ENDDURREA	
01E0	302	MAC SYM FOR	FOR\$K_ENDFILER	
01E0	303	MAC SYM FOR	FOR\$K_ERRDURREA	
01E0	304	MAC SYM FOR	FOR\$K_ERRDURWRI	
01E0	305	MAC SYM FOR	FOR\$K_FAC_NO	
01E0	306			
01E0	307	MAC SYM FOR	FOR\$K_FILNAMSPE	
01E0	308	MAC SYM FOR	FOR\$K_FILNOTFOU	
01E0	309	MAC SYM FOR	FOR\$K_FINERR	
01E0	310	MAC SYM FOR	FOR\$K_FLOOVE	
01E0	311	MAC SYM FOR	FOR\$K_FLOUND	
01E0	312			
01E0	313	MAC SYM FOR	FOR\$K_FLOZERDIV	
01E0	314	MAC SYM FOR	FOR\$K_FORVARMIS	
01E0	315	MAC SYM FOR	FOR\$K_INCFILORG	
01E0	316	MAC SYM FOR	FOR\$K_INCKEYCHG	
01E0	317	MAC SYM FOR	FOR\$K_INCOPECLO	
01E0	318	MAC SYM FOR	FOR\$K_INCRECLEN	
01E0	319	MAC SYM FOR	FOR\$K_INRECTYP	
01E0	320	MAC SYM FOR	FOR\$K_INFFORLOO	
01E0	321	MAC SYM FOR	FOR\$K_INPCONERR	
01E0	322	MAC SYM FOR	FOR\$K_INPRECTOO	
01E0	323	MAC SYM FOR	FOR\$K_INPSTAREQ	
01E0	324	MAC SYM FOR	FOR\$K_INSIRMEM	
01E0	325	MAC SYM FOR	FOR\$K_INTOVF	
01E0	326	MAC SYM FOR	FOR\$K_INTZERDIV	
01E0	327	MAC SYM FOR	FOR\$K_INVARGFOR	
01E0	328	MAC SYM FOR	FOR\$K_INVKESPE	
01E0	329	MAC SYM FOR	FOR\$K_INVLGUNI	
01E0	330	MAC SYM FOR	FOR\$K_INVREFVAR	
01E0	331	MAC SYM FOR	FOR\$K_KEYVALERR	
01E0	332	MAC SYM FOR	FOR\$K_LISIO_SYN	
01E0	333	MAC SYM FOR	FOR\$K_MAX_ERR	
01E0	334	MAC SYM FOR	FOR\$K_MIXFILACC	
01E0	335	MAC SYM FOR	FOR\$K_NOTFORSPE	
01E0	336	MAC SYM FOR	FOR\$K_NO_CURREC	

01E0	337	MAC	SYM	FOR	FORSK_NO_SUCDEV
01E0	338	MAC	SYM	FOR	FORSK_OPEDEFREQ
01E0	339	MAC	SYM	FOR	FORSK_OPEFAI
01E0	340				
01E0	341	MAC	SYM	FOR	FORSK_OUTCONERR
01E0	342	MAC	SYM	FOR	FORSK_OUTSTAOVE
01E0	343	MAC	SYM	FOR	FORSK_RECIO_OPE
01E0	344	MAC	SYM	FOR	FORSK_RECNUMOUT
01E0	345	MAC	SYM	FOR	FORSK_REWERR
01E0	346	MAC	SYM	FOR	FORSK_REWITERR
01E0	347	MAC	SYM	FOR	FORSK_SEGRECFOR
01E0	348	MAC	SYM	FOR	FORSK_SPERECLOC
01E0	349	MAC	SYM	FOR	FORSK_SYNERRFOR
01E0	350	MAC	SYM	FOR	FORSK_SYNERRNAM
01E0	351	MAC	SYM	FOR	FORSK_TOOMANREC
01E0	352	MAC	SYM	FOR	FORSK_TOOMANVAL
01E0	353	MAC	SYM	FOR	FORSK_UNIALROPE
01E0	354	MAC	SYM	FOR	FORSK_UNLERR
01E0	355	MAC	SYM	FOR	FORSK_VFEVALERR
01E0	356	MAC	SYM	FOR	FORSK_WRIAREAFIL
01E0	357				
01E0	358	: MODULE:FOR\$ERRSNS			: See also end where FOR\$ERRSNS_SAV declared
01E0	359	MAC	CALL	FOR	FOR\$ERRSNS
01E8	360	MAC	CALL	FOR	FOR\$ERRSNS_W
01F0	361				
01F0	362	: MODULE:FOR\$EXIT			
01F0	363	MAC	CALL	FOR	FOR\$EXIT
01F8	364	MAC	CALL	FOR	FOR\$EXIT_W
0200	365				
0200	366	: MODULE:OT\$SCVTTR			
0200	367				: This module is a replacement
0200	368				: for FOR\$CNVIR. The old
0200	369				: FOR\$ entry point still exists.
0200	370				: See later where other OTSS
0200	371				: entry points are named.
0200	372				
0200	373	OLDENTRY			FORSNV_IN_DEFG : Same as next symbol.
0200	374	MAC	CALL	OTS	OT\$SCVT_T_D
0208	375				
0208	376	: MODULE:FOR\$FIND			
0208	377	MAC	CALL	FOR	FOR\$FIND
0210	378				
0210	379	: MODULE:OT\$SCVT_TI_L - replaces in part FOR\$CNVII			
0210	380	OLDENTRY			FORSNV_IN_I
0210	381	MAC	CALL	OTS	OT\$SCVT_TI_L
0218	382				
0218	383	: MODULE:OT\$SCVT_TL_L - replaces in part FOR\$CNVII			
0218	384	OLDENTRY			FORSNV_IN_L
0218	385	MAC	CALL	OTS	OT\$SCVT_TL_L
0220	386				
0220	387	: MODULE: OT\$SCVT_TO_L - replaces in part FOR\$CNVII			
0220	388	OLDENTRY			FORSNV_IN_O
0220	389	MAC	CALL	OTS	OT\$SCVT_TO_L
0228	390	OLDENTRY			FORSNV_IN_Z
0228	391	MAC	CALL	OTS	OT\$SCVT_TZ_L
0230	392				
0230	393	: MODULE:FOR\$IDATE			

0230	394	MAC	NOVECT	FOR	FOR\$IDATE
0230	395				
0230	396	: MODULE:FOR\$INI_DES			
0230	397	MAC	JSB	FOR	FOR\$INI_DES1_R2
0238	398	MAC	JSB	FOR	FOR\$INI_DES2_R3
0240	399	MAC	JSB	FOR	FOR\$INI_DESC_R6
0248	400				
0248	401	: MODULE:FOR\$JDATE			
0248	402	MAC	NOVECT	FOR	FOR\$JDATE
0248	403				
0248	404	: MODULE:FOR\$MSGDEF			
0248	405	MAC	SYM	FOR	FOR\$_ADJARRDIM
0248	406	MAC	SYM	FOR	FOR\$_ATTACNON
0248	407	MAC	SYM	FOR	FOR\$_BACERR
0248	408	MAC	SYM	FOR	FOR\$_CLOERR
0248	409				
0248	410	MAC	SYM	FOR	FOR\$_DELERR
0248	411	MAC	SYM	FOR	FOR\$_DUPFILSPE
0248	412	MAC	SYM	FOR	FOR\$_ENDDURREA
0248	413	MAC	SYM	FOR	FOR\$_ENDFILEERR
0248	414	MAC	SYM	FOR	FOR\$_ERRDURREA
0248	415				
0248	416	MAC	SYM	FOR	FOR\$_ERRDURWRI
0248	417	MAC	SYM	FOR	FOR\$_FILNAMSPE
0248	418	MAC	SYM	FOR	FOR\$_FILNOTFOU
0248	419	MAC	SYM	FOR	FOR\$_FINERR
0248	420	MAC	SYM	FOR	FOR\$_FORVARMIS
0248	421				
0248	422	MAC	SYM	FOR	FOR\$_INCFILORG
0248	423	MAC	SYM	FOR	FOR\$_INCKEYCHG
0248	424	MAC	SYM	FOR	FOR\$_INCOPECLO
0248	425	MAC	SYM	FOR	FOR\$_INCRECLEN
0248	426	MAC	SYM	FOR	FOR\$_INRECTYP
0248	427	MAC	SYM	FOR	FOR\$_INFFORLOO
0248	428	MAC	SYM	FOR	FOR\$_INPCONERR
0248	429				
0248	430	MAC	SYM	FOR	FOR\$_INPRECTOO
0248	431	MAC	SYM	FOR	FOR\$_INPSTAREQ
0248	432	MAC	SYM	FOR	FOR\$_INSVIRMEM
0248	433	MAC	SYM	FOR	FOR\$_INVARGFOR
0248	434	MAC	SYM	FOR	FOR\$_INVKEYSPE
0248	435				
0248	436	MAC	SYM	FOR	FOR\$_INVLOGUNI
0248	437	MAC	SYM	FOR	FOR\$_INVREFVAR
0248	438	MAC	SYM	FOR	FOR\$_KEYVALERR
0248	439	MAC	SYM	FOR	FOR\$_LISIO_SYN
0248	440	MAC	SYM	FOR	FOR\$_MIXFIACC
0248	441				
0248	442	MAC	SYM	FOR	FOR\$_NOTFORSPE
0248	443	MAC	SYM	FOR	FOR\$_NO_CURREC
0248	444	MAC	SYM	FOR	FOR\$_NO_SUCDEV
0248	445	MAC	SYM	FOR	FOR\$_OPEDEFREQ
0248	446				
0248	447	MAC	SYM	FOR	FOR\$_OPEFAI
0248	448	MAC	SYM	FOR	FOR\$_OUTCONERR
0248	449	MAC	SYM	FOR	FOR\$_OUTSTAOVE
0248	450	MAC	SYM	FOR	FOR\$_RECIO_OPE

0248 451
0248 452 MAC SYM FOR FOR\$_RENUMOUT
0248 453 MAC SYM FOR FOR\$_REWERR
0248 454 MAC SYM FOR FOR\$_REWPITERR
0248 455 MAC SYM FOR FOR\$_SEGRECFOR
0248 456
0248 457 MAC SYM FOR FOR\$_SPERECLOC
0248 458 MAC SYM FOR FOR\$_SYNERRFOR
0248 459 MAC SYM FOR FOR\$_SYNERRNAM
0248 460 MAC SYM FOR FOR\$_TOOMANREC
0248 461 MAC SYM FOR FOR\$_TOOMANVAL
0248 462 MAC SYM FOR FOR\$_UNIALROPE
0248 463 MAC SYM FOR FOR\$_UNLERR
0248 464 MAC SYM FOR FOR\$_VFEVALERR
0248 465 MAC SYM FOR FOR\$_WRIREAFIL
0248 466
0248 467 ; MODULE:FOR\$PAUSE
0248 468 MAC CALL FOR FOR\$PAUSE
0250 469
0250 470 ; MODULE:FOR\$RANDOM
0250 471 MAC NOVECT FOR FOR\$IRAN
0250 472 MAC NOVECT FOR FOR\$RANDU
0250 473 MAC NOVECT FOR FOR\$RANDU_W
0250 474
0250 475 ; MODULE:FOR\$REWIND
0250 476 MAC CALL FOR FOR\$REWIND
0258 477
0258 478 ; MODULE:FOR\$SECNDS
0258 479 MAC CALL FOR FOR\$SECNDS
0260 480
0260 481 ; MODULE:FOR\$STOP
0260 482 MAC CALL FOR FOR\$STOP
0268 483
0268 484 ; MODULE:FOR\$TIME
0268 485 MAC NOVECT FOR FOR\$TIME
0268 486
0268 487 ; MODULE:FOR\$TIME_T_DS
0268 488 MAC NOVECT FOR FOR\$TIME_T_DS
0268 489

```
0268 491 ;+
0268 492 ; Mathematical library entry points
0268 493 ; Include the frequently used ones first (ones with JSBs)
0268 494 ;-
0268 495
0268 496 : MODULE:MTH$ACOS (Degree entries further on)
0268 497 MAC CALL MTH MTH$ACOS
0270 498 OLDENTRY MTH$ACOS R5 ; Release 1 name
0270 499 MAC JSB MTH MTH$ACOS_R4
0278 500
0278 501 : MODULE:MTH$ALOG
0278 502 MAC CALL MTH MTH$ALOG
0280 503 MAC CALL MTH MTH$ALOG10
0288 504 MAC JSB MTH MTH$ALOG10 R5
0290 505 MAC JSB MTH MTH$ALOG_R5
0298 506
0298 507 : MODULE:MTH$ASIN
0298 508 MAC CALL MTH MTH$ASIN
02A0 509 OLDENTRY MTH$ASIN R5 ; Release 1 name
02A0 510 MAC JSB MTH MTH$ASIN_R4
02A8 511
02A8 512 : MODULE:MTH$ATAN
02A8 513 MAC CALL MTH MTH$ATAN
02B0 514 MAC CALL MTH MTH$ATAN2
02B8 515 MAC JSB MTH MTH$ATAN_R4
02C0 516
02C0 517 : MODULE:MTH$DACOS
02C0 518 MAC CALL MTH MTH$DACOS
02C8 519 OLDENTRY MTH$DACOS R9 ; Release 1 name
02C8 520 MAC JSB MTH MTH$DACOS_R7
02D0 521
02D0 522 : MODULE:MTH$DASIN
02D0 523 MAC CALL MTH MTH$DASIN
02D8 524 OLDENTRY MTH$DASIN R9 ; Release 1 name
02D8 525 MAC JSB MTH MTH$DASIN_R7
02E0 526
02E0 527 : MODULE:MTH$DATAN
02E0 528 MAC CALL MTH MTH$DATAN
02E8 529 MAC CALL MTH MTH$DATAN2
02F0 530 MAC JSB MTH MTH$DATAN_R7
02F8 531
02F8 532 : MODULE:MTH$DEXP
02F8 533 MAC CALL MTH MTH$DEXP
0300 534 OLDENTRY MTH$DEXP R7 ; Obsolete name
0300 535 MAC JSB MTH MTH$DEXP_R6
```

```
0308 537 ; MODULE:MTH$DLOG
0308 538     MAC    CALL    MTH    MTH$DLOG
0310 539     MAC    CALL    MTH    MTH$DLOG10
0318 540     MAC    JSB     MTH    MTH$DLOG10_R8
0320 541     MAC    JSB     MTH    MTH$DLOG_R8
0328 542
0328 543 ; MODULE:MTH$DSINCOS
0328 544     MAC    CALL    MTH    MTH$DCOS
0330 545     MAC    JSB     MTH    MTH$DCOS_R7
0338 546     MAC    CALL    MTH    MTH$DSIN
0340 547     MAC    JSB     MTH    MTH$DSIN_R7
0348 548
0348 549 ; MODULE:MTH$DSQRT
0348 550     MAC    CALL    MTH    MTH$DSQRT
0350 551     MAC    JSB     MTH    MTH$DSQRT_R5
0358 552
0358 553 ; MODULE:MTH$EXP
0358 554     MAC    CALL    MTH    MTH$EXP
0360 555     MAC    JSB     MTH    MTH$EXP_R4
0368 556
0368 557 ; MODULE:MTH$SINCOS
0368 558     MAC    CALL    MTH    MTH$COS
0370 559     MAC    JSB     MTH    MTH$COS_R4
0378 560     MAC    CALL    MTH    MTH$SSIN
0380 561     MAC    JSB     MTH    MTH$SSIN_R4
0388 562
0388 563 ; MODULE:MTH$SQRT
0388 564     MAC    CALL    MTH    MTH$SQRT
0390 565 :      JSB to MTH$SQRT_R3 is with new entries.
0390 566
0390 567 ; MODULE:MTH$SQRT_R2      (obsolete module)
0390 568     MAC    JSB     MTH    MTH$SQRT_R2
0398 569
```

0398 571 ;+
0398 572 ; Language independent support entry points
0398 573 ; Include them after frequently used math routines, since
0398 574 ; they have the power routines.
0398 575 ;-
0398 576
0398 577
0398 578 : MODULE:OTSS\$DIVC
0398 579 MAC CALL OTS OTSS\$DIVC
03A0 580
03A0 581 : MODULE:OTSS\$LINKAGE
03A0 582 MAC SYM OTS OTSS\$LINKAGE
03A0 583
03A0 584 : MODULE:OTSS\$MSGDEF
03A0 585 MAC SYM OTS OTSS\$FATINTERR
03A0 586 MAC SYM OTS OTSS\$INPCONERR
03A0 587 MAC SYM OTS OTSS\$INTDATCOR
03A0 588 MAC SYM OTS OTSS\$INVSTRDES
03A0 589 MAC SYM OTS OTSS\$IO CONCLO
03A0 590 MAC SYM OTS OTSS\$OUTCONERR
03A0 591 MAC SYM OTS OTSS\$USEFLORES
03A0 592 MAC SYM OTS OTSS\$WRONUMARG
03A0 593
03A0 594 : MODULE:OTSS\$POWCJ
03A0 595 MAC CALL OTS OTSS\$POWCJ
03A8 596
03A8 597 : MODULE:OTSS\$POWDD
03A8 598 MAC CALL OTS OTSS\$POWDD
03B0 599 MAC CALL OTS OTSS\$POWDR
03B8 600 MAC CALL OTS OTSS\$POWRD
03C0 601
03C0 602 : MODULE:OTSS\$POWDJ
03C0 603 MAC CALL OTS OTSS\$POWDJ
03C8 604
03C8 605 : MODULE:OTSS\$POWII
03C8 606 MAC CALL OTS OTSS\$POWII
03D0 607
03D0 608 : MODULE:OTSS\$POWJJ
03D0 609 MAC CALL OTS OTSS\$POWJJ
03D8 610
03D8 611 : MODULE:OTSS\$POWRJ
03D8 612 MAC CALL OTS OTSS\$POWRJ
03E0 613
03E0 614 : MODULE:OTSS\$POWRR
03E0 615 MAC CALL OTS OTSS\$POWRR
03E8 616
03E8 617 : MODULE:OTSS\$COPY
03E8 618 MAC CALL OTS OTSS\$COPY_DDX
03F0 619 MAC JSB OTS OTSS\$COPY_DDX6
03F8 620 MAC CALL OTS OTSS\$COPY_R_DX
0400 621 MAC JSB OTS OTSS\$COPY_R_DX6
0408 622 MAC CALL OTS OTSS\$GET1_DD
0410 623 MAC JSB OTS OTSS\$GET1_DD_R6
0418 624 MAC CALL OTS OTSS\$FREET_DD
0420 625 MAC JSB OTS OTSS\$FREE1_DD6
0428 626 MAC CALL OTS OTSS\$FREE_N_DD
0430 627 MAC JSB OTS OTSS\$FREE_N_DD6

0438 629 :+
0438 630 ; Now define the rest of the Math entry points
0438 631 :-
0438 632 : MODULE:MTH\$ABS
0438 634 MAC NOVECT MTH MTH\$ABS
0438 635 MAC NOVECT MTH MTH\$DABS
0438 636 MAC NOVECT MTH MTH\$GABS
0438 637 MAC NOVECT MTH MTH\$HABS
0438 638 MAC NOVECT MTH MTH\$IIABS
0438 639 MAC NOVECT MTH MTH\$JIABS
0438 640 : MODULE:MTH\$AINST
0438 642 MAC NOVECT MTH MTH\$AINST
0438 643 : MODULE:MTH\$AMOD
0438 645 MAC NOVECT MTH MTH\$AMOD
0438 646 : MODULE:MTH\$ANINT
0438 648 MAC NOVECT MTH MTH\$ANINT
0438 649 : MODULE:MTH\$BITOPS
0438 651 MAC NOVECT MTH MTH\$IIAND
0438 652 MAC NOVECT MTH MTH\$IIIEOR
0438 653 MAC NOVECT MTH MTH\$IIOR
0438 654 MAC NOVECT MTH MTH\$IIISHFT
0438 655 : MODULE:MTH\$INOT
0438 656 MAC NOVECT MTH MTH\$INOT
0438 657 MAC NOVECT MTH MTH\$JIAND
0438 658 MAC NOVECT MTH MTH\$JIEOR
0438 659 MAC NOVECT MTH MTH\$JIOR
0438 660 : MODULE:MTH\$JISHFT
0438 661 MAC NOVECT MTH MTH\$JISHFT
0438 662 MAC NOVECT MTH MTH\$JNOT
0438 663 : MODULE:MTH\$CABS
0438 665 MAC CALL MTH MTH\$CABS
0440 666 : MODULE:MTH\$CEXP
0440 668 MAC CALL MTH MTH\$CEXP
0448 669 : MODULE:MTH\$CLOG
0448 671 MAC CALL MTH MTH\$CLOG
0450 672 : MODULE:MTH\$CONJG
0450 673 : MODULE:MTH\$CONJG
0450 674 MAC NOVECT MTH MTH\$CONJG
0450 675 : MODULE:MTH\$CONVER
0450 677 MAC NOVECT MTH MTH\$AIMAG
0450 678 MAC NOVECT MTH MTH\$DIMAG
0450 679 MAC NOVECT MTH MTH\$GIMAG
0450 680 MAC NOVECT MTH MTH\$CMPLX
0450 681 MAC NOVECT MTH MTH\$DCMPLX
0450 682 MAC NOVECT MTH MTH\$GCMPXL
0450 683 MAC NOVECT MTH MTH\$DBLE
0450 684 MAC NOVECT MTH MTH\$GDBLE
0450 685 MAC NOVECT MTH MTH\$DFLOTI

0450	686	MAC	NOVECT	MTH	MTH\$DFLOTJ
0450	687	MAC	NOVECT	MTH	MTH\$FLOATI
0450	688	MAC	NOVECT	MTH	MTH\$FLOATJ
0450	689	MAC	NOVECT	MTH	MTH\$GFLOTI
0450	690	MAC	NOVECT	MTH	MTH\$GFLOTJ
0450	691	MAC	NOVECT	MTH	MTH\$IIDINT
0450	692	MAC	NOVECT	MTH	MTH\$IGINT
0450	693	MAC	NOVECT	MTH	MTH\$IHINT
0450	694	MAC	NOVECT	MTH	MTH\$IFIX
0450	695	MAC	NOVECT	MTH	MTH\$INT
0450	696	MAC	NOVECT	MTH	MTH\$JIDINT
0450	697	MAC	NOVECT	MTH	MTH\$JIGINT
0450	698	MAC	NOVECT	MTH	MTH\$JIHINT
0450	699	MAC	NOVECT	MTH	MTH\$JIFIX
0450	700	MAC	NOVECT	MTH	MTH\$JINT
0450	701	MAC	NOVECT	MTH	MTH\$REAL
0450	702	MAC	NOVECT	MTH	MTH\$DREAL
0450	703	MAC	NOVECT	MTH	MTH\$GREAL
0450	704	MAC	NOVECT	MTH	MTH\$SNGL
0450	705	MAC	NOVECT	MTH	MTH\$SNGLG
0450	706				
0450	707	: MODULE:MTH\$COSH			
0450	708	MAC	CALL	MTH	MTH\$COSH
0458	709				
0458	710	: MODULE:MTH\$CSINCOS			
0458	711	MAC	CALL	MTH	MTH\$CCOS
0460	712	MAC	CALL	MTH	MTH\$CSIN
0468	713				
0468	714	: MODULE:MTH\$CSQRT			
0468	715	MAC	CALL	MTH	MTH\$CSQRT
0470	716				
0470	717	: MODULE:MTH\$DCOSH			
0470	718	MAC	CALL	MTH	MTH\$DCOSH
0478	719				
0478	720	: MODULE:MTH\$DIM			
0478	721	MAC	NOVECT	MTH	MTH\$DDIM
0478	722	MAC	NOVECT	MTH	MTH\$DIM
0478	723	MAC	NOVECT	MTH	MTH\$IIDIM
0478	724	MAC	NOVECT	MTH	MTH\$JIDIM
0478	725				
0478	726	: MODULE:MTH\$DINT			
0478	727	MAC	NOVECT	MTH	MTH\$DINT

0478 729
0478 730 : MODULE:MTH\$DMAX1
0478 731 MAC NOVECT MTH MTH\$DMAX1
0478 732
0478 733 : MODULE:MTH\$DMIN1
0478 734 MAC NOVECT MTH MTH\$DMIN1
0478 735
0478 736 : MODULE:MTH\$DMOD
0478 737 MAC NOVECT MTH MTH\$DMOD
0478 738
0478 739 : MODULE:MTH\$DNINT
0478 740 MAC NOVECT MTH MTH\$DNINT
0478 741
0478 742 : MODULE:MTH\$DPROD
0478 743 MAC NOVECT MTH MTH\$DPROD
0478 744
0478 745 : MODULE:MTH\$DSIGN
0478 746 MAC NOVECT MTH MTH\$DSIGN
0478 747
0478 748 : MODULE:MTH\$DSINH
0478 749 MAC CALL MTH MTH\$DSINH
0480 750
0480 751 : MODULE:MTH\$DTAN
0480 752 MAC CALL MTH MTH\$DTAN
0488 753
0488 754 : MODULE:MTH\$DTANH
0488 755 MAC CALL MTH MTH\$DTANH
0490 756
0490 757 : MODULE:MTH\$IIDNNNT
0490 758 MAC NOVECT MTH MTH\$IIDNNNT
0490 759
0490 760 : MODULE:MTH\$IIISIGN
0490 761 MAC NOVECT MTH MTH\$IIISIGN
0490 762
0490 763 : MODULE:MTH\$IMAX0
0490 764 MAC NOVECT MTH MTH\$AIMAX0
0490 765 MAC NOVECT MTH MTH\$IMAX0
0490 766
0490 767 : MODULE:MTH\$IMIN0
0490 768 MAC NOVECT MTH MTH\$AIMIN0
0490 769 MAC NOVECT MTH MTH\$IMIN0
0490 770
0490 771 : MODULE:MTH\$ININT
0490 772 MAC NOVECT MTH MTH\$ININT
0490 773
0490 774 : MODULE:MTH\$JIDNNNT
0490 775 MAC NOVECT MTH MTH\$JIDNNNT
0490 776
0490 777 : MODULE:MTH\$JISIGN
0490 778 MAC NOVECT MTH MTH\$JISIGN
0490 779
0490 780 : MODULE:MTH\$JMAX0
0490 781 MAC NOVECT MTH MTH\$AJMAX0
0490 782 MAC NOVECT MTH MTH\$JMAX0
0490 783
0490 784 : MODULE:MTH\$JMIN0
0490 785 MAC NOVECT MTH MTH\$AJMIN0

0490 786 MAC NOVECT MTH MTH\$JMINO
0490 787
0490 788 : MODULE:MTH\$JNINT
0490 789 MAC NOVECT MTH MTH\$JNINT
0490 790
0490 791 : MODULE:MTH\$MAX1
0490 792 MAC NOVECT MTH MTH\$AMAX1
0490 793 MAC NOVECT MTH MTH\$IMAX1
0490 794 MAC NOVECT MTH MTH\$JMAX1
0490 795
0490 796 : MODULE:MTH\$MIN1
0490 797 MAC NOVECT MTH MTH\$AMIN1
0490 798 MAC NOVECT MTH MTH\$IMIN1
0490 799 MAC NOVECT MTH MTH\$JMIN1
0490 800
0490 801 : MODULE:MTH\$MOD
0490 802 MAC NOVECT MTH MTH\$IMOD
0490 803 MAC NOVECT MTH MTH\$JMOD
0490 804
0490 805 : MODULE:MTH\$MSGDEF
0490 806 MAC SYM MTH MTH\$_FLOOVEMAT
0490 807 MAC SYM MTH MTH\$_FLOUNDMAT
0490 808 MAC SYM MTH MTH\$_INVARGMAT
0490 809 MAC SYM MTH MTH\$_LOGZERNEG
0490 810
0490 811 MAC SYM MTH MTH\$_SIGLOSMAT
0490 812
0490 813 MAC SYM MTH MTH\$_SQUROONEG
0490 814 MAC SYM MTH MTH\$_UNDEXP
0490 815 MAC SYM MTH MTH\$_WRONUMARG
0490 816
0490 817 : MODULE:MTH\$RANDOM
0490 818 MAC CALL MTH MTH\$RANDOM
0498 819
0498 820 : MODULE:MTH\$SIGN
0498 821 MAC NOVECT MTH MTH\$SIGN
0498 822
0498 823 : MODULE:MTH\$SINH
0498 824 MAC CALL MTH MTH\$SINH
04A0 825
04A0 826 : MODULE:MTH\$TAN
04A0 827 MAC CALL MTH MTH\$TAN
04A8 828
04A8 829 : MODULE:MTH\$TANH
04A8 830 MAC CALL MTH MTH\$TANH
04B0 831

04B0 833 :+
04B0 834 : General library entry points LIB\$
04B0 835 :-
04B0 836
04B0 837
04B0 838 : MODULE:LIB\$AST_IN_PROG
04B0 839 MAC CALL LIB LIB\$AST_IN_PROG
04B8 840
04B8 841 : MODULE:LIB\$CHAR
04B8 842 MAC NOVECT LIB LIB\$CHAR
04B8 843
04B8 844 : MODULE:LIB\$CRC
04B8 845 MAC CALL LIB LIB\$CRC
04C0 846
04C0 847 : MODULE:LIB\$CRC_TABLE
04C0 848 MAC CALL LIB LIB\$CRC_TABLE
04C8 849
04C8 850 : MODULE:LIB\$CVTDF
04C8 851 MAC NOVECT LIB LIB\$CVTDF
04C8 852
04C8 853
04C8 854 : MODULE:LIB\$DEC_OVER
04C8 855 MAC CALL LIB LIB\$DEC_OVER
04D0 856
04D0 857 : MODULE:LIB\$ESTABLISH
04D0 858 MAC CALL LIB LIB\$ESTABLISH
04D8 859
04D8 860 : MODULE:LIB\$EXTV
04D8 861 MAC CALL LIB LIB\$EXTV
04E0 862
04E0 863 : MODULE:LIB\$EXTZV
04E0 864 MAC CALL LIB LIB\$EXTZV
04E8 865
04E8 866 : MODULE:LIB\$FFC
04E8 867 MAC CALL LIB LIB\$FFC
04F0 868
04F0 869 : MODULE:LIB\$FFS
04F0 870 MAC CALL LIB LIB\$FFS
04F8 871
04F8 872 : MODULE:LIB\$FIXUP_FLT
04F8 873 MAC CALL LIB LIB\$FIXUP_FLT
0500 874
0500 875 : MODULE:LIB\$FLT_UNDER
0500 876 MAC CALL LIB LIB\$FLT_UNDER
0508 877
0508 878 : MODULE:LIB\$GET_INPUT
0508 879 MAC CALL LIB LIB\$GET_INPUT
0510 880 MAC CALL LIB LIB\$GET_COMMAND
0518 881
0518 882 : MODULE:LIB\$ICHAR
0518 883 MAC NOVECT LIB LIB\$ICHAR
0518 884
0518 885 : MODULE:LIB\$INDEX
0518 886 MAC CALL LIB LIB\$INDEX
0520 887
0520 888 : MODULE:LIB\$INITIALIZE
0520 889 MAC NOVECT LIB LIB\$INITIALIZE

0520	890			
0520	891	: MODULE:LIB\$INSV		
0520	892	MAC CALL LIB	LIB\$INSV	
0528	893			
0528	894	: MODULE:LIB\$INT_OVER		
0528	895	MAC CALL LIB	LIB\$INT_OVER	
0530	896			
0530	897	: MODULE:LIB\$LEN		
0530	898	MAC NOVECT LIB	LIB\$LEN	
0530	899			
0530	900	: MODULE:LIB\$LOCC		
0530	901	MAC CALL LIB	LIB\$LOCC	
0538	902			
0538	903	: MODULE:LIB\$LOOKUP_KEY		
0538	904	MAC NOVECT LIB	LIB\$LOOKUP_KEY	
0538	905			
0538	906	: MODULE:LIB\$MATCHC		
0538	907	MAC CALL LIB	LIB\$MATCHC	
0540	908			
0540	909	: MODULE:LIB\$MATCH_COND		
0540	910	MAC CALL LIB	LIB\$MATCH_COND	
0548	911			
0548	912	: MODULE:LIB\$MOVTC		
0548	913	MAC CALL LIB	LIB\$MOVTC	
0550	914			
0550	915	: MODULE:LIB\$MOVTUC		
0550	916	MAC CALL LIB	LIB\$MOVTUC	
0558	917			
0558	918	: MODULE:LIB\$MSGDEF		
0558	919	MAC SYM LIB	LIB\$_AMBKEY	
0558	920	MAC SYM LIB	LIB\$_ATTCONSTO	
0558	921	MAC SYM LIB	LIB\$_BADBLOADR	
0558	922	MAC SYM LIB	LIB\$_BADBLOSIZ	
0558	923	MAC SYM LIB	LIB\$_BADSTA	
0558	924	MAC SYM LIB	LIB\$_EF_ALRFRE	
0558	925	MAC SYM LIB	LIB\$_EF_ALRRES	
0558	926	MAC SYM LIB	LIB\$_EF_RESSYS	
0558	927	MAC SYM LIB	LIB\$_FATERRLIB	
0558	928	MAC SYM LIB	LIB\$_INPSTRTRU	
0558	929	MAC SYM LIB	LIB\$_INSEF	
0558	930	MAC SYM LIB	LIB\$_INSVIRMEM	
0558	931			
0558	932	MAC SYM LIB	LIB\$_INTLOGERR	
0558	933	MAC SYM LIB	LIB\$_INVARG	
0558	934	MAC SYM LIB	LIB\$_INVSTRDES	
0558	935	MAC SYM LIB	LIB\$_NORMAL	
0558	936			
0558	937	MAC SYM LIB	LIB\$_NOTFOU	
0558	938	MAC SYM LIB	LIB\$_PUSSTAOVE	
0558	939	MAC SYM LIB	LIB\$_SIGNO_ARG	
0558	940	MAC SYM LIB	LIB\$_STRIS_INT	
0558	941	MAC SYM LIB	LIB\$_STRTRD	
0558	942			
0558	943	MAC SYM LIB	LIB\$_UNRKEY	
0558	944	MAC SYM LIB	LIB\$_USEFLORES	
0558	945	MAC SYM LIB	LIB\$_WRONUMARG	
0558	946			

0558	947	: MODULE:LIB\$PUT_OUTPUT		
0558	948	MAC CALL	LIB	LIB\$PUT_OUTPUT
0560	949			
0560	950	: MODULE:LIB\$REVERT		
0560	951	MAC CALL	LIB	LIB\$REVERT
0568	952			
0568	953	: MODULE:LIB\$SCANC		
0568	954	MAC CALL	LIB	LIB\$SCANC
0570	955			
0570	956	: MODULE:LIB\$SCOPY		
0570	957	MAC CALL	LIB	LIB\$COPY_DDX
0578	958	MAC JSB	LIB	LIB\$COPY_DDX6
0580	959	MAC CALL	LIB	LIB\$COPY_R_DX
0588	960	MAC JSB	LIB	LIB\$COPY_R_DX6
0590	961	MAC CALL	LIB	LIB\$SGET1_DD
0598	962	MAC JSB	LIB	LIB\$SGET1_DD R6
05A0	963	MAC CALL	LIB	LIB\$SFREET_DD
05A8	964	MAC JSB	LIB	LIB\$FREE1_DD6
05B0	965	MAC CALL	LIB	LIB\$FREEN_DD
05B8	966	MAC JSB	LIB	LIB\$FREEN_DD6
05C0	967			
05C0	968	: MODULE:LIB\$STAT_VM		
05C0	969	MAC CALL	LIB	LIB\$STAT_VM
05C8	970			
05C8	971	: MODULE:LIB\$SIGNAL		
05C8	972	MAC CALL	LIB	LIB\$SIGNAL
05D0	973	MAC CALL	LIB	LIB\$STOP
05D8	974			
05D8	975	: MODULE:LIB\$SIG_TO_RET		
05D8	976			
05D8	977	MAC CALL	LIB	LIB\$SIG_TO_RET
05E0	978			
05E0	979	: MODULE:LIB\$SKPC		
05E0	980	MAC CALL	LIB	LIB\$SKPC
05E8	981			
05E8	982	: MODULE:LIB\$SPANC		
05E8	983	MAC CALL	LIB	LIB\$SPANC
05F0	984			
05F0	985	: MODULE:LIB\$SYS_ASCTIM		
05F0	986	MAC NOVECT LIB		LIB\$SYS_ASCTIM
05F0	987			
05F0	988	: MODULE:LIB\$SYS_FAO		
05F0	989	MAC NOVECT LIB		LIB\$SYS_FAO
05F0	990			
05F0	991	: MODULE:LIB\$SYS_FAOL		
05F0	992	MAC NOVECT LIB		LIB\$SYS_FAOL
05F0	993			
05F0	994	: MODULE:LIB\$SYS_GETMSG		
05F0	995	MAC NOVECT LIB		LIB\$SYS_GETMSG
05F0	996			
05F0	997	: MODULE:LIB\$SYS_TRNLOG		
05F0	998	MAC NOVECT LIB		LIB\$SYS_TRNLOG
05F0	999			
05F0	1000	: MODULE:LIB\$VM		
05F0	1001	MAC CALL	LIB	LIB\$FREE_VM
05F8	1002	MAC CALL	LIB	LIB\$GET_VM
0600	1003			

```
0600 1004 : MODULE:LIB$STAT VM
0600 1005     MAC    CALL   LIB    LIB$SHOW_VM
0608 1006
0608 1007 : MODULE:LIB$CURRENCY
0608 1008     MAC    NOVECT LIB    LIB$CURRENCY
0608 1009
0608 1010 : MODULE:LIB$DIGIT_SEP
0608 1011     MAC    NOVECT LIB    LIB$DIGIT_SEP
0608 1012
0608 1013 : MODULE:LIB$RADIX_POINT
0608 1014     MAC    NOVECT LIB    LIB$RADIX_POINT
0608 1015
0608 1016 : MODULE:LIB$RUN_PROGRAM
0608 1017     MAC    NOVECT LIB    LIB$RUN_PROGRAM
0608 1018
0608 1019 : MODULE:LIB$DO_COMMAND
0608 1020     MAC    NOVECT LIB    LIB$DO_COMMAND
0608 1021
0608 1022 : MODULE:LIB$COMMON
0608 1023     MAC    NOVECT LIB    LIB$GET_COMMON
0608 1024     MAC    NOVECT LIB    LIB$PUT_COMMON
0608 1025
0608 1026 : MODULE:LIB$TRA_ASC_EBC
0608 1027     MAC    NOVECT LIB    LIB$TRA_ASC_EBC
0608 1028
0608 1029 : MODULE:LIB$TRA_EBC_ASC
0608 1030     MAC    NOVECT LIB    LIB$TRA_EBC_ASC
0608 1031
0608 1032 : MODULE:LIB$INSEQHI
0608 1033     MAC    NOVECT LIB    LIB$INSEQHI
0608 1034
0608 1035 : MODULE:LIB$INSEQTI
0608 1036     MAC    NOVECT LIB    LIB$INSEQTI
0608 1037
0608 1038 : MODULE:LIB$REMQHI
0608 1039     MAC    NOVECT LIB    LIB$REMQHI
0608 1040
0608 1041 : MODULE:LIB$REMQTI
0608 1042     MAC    NOVECT LIB    LIB$REMQTI
0608 1043
```

0608 1045 :+
0608 1046 : Internal entry points which need vectors because the non-shared
0608 1047 : library must call these procedures in shared library, rather
0608 1048 : than getting a copy of the procedure from the object library.
0608 1049 : Note: the instances of \$\$ entry vectors is to be minimized.
0608 1050 : The only cases where it hurts to have two copies of a procedure
0608 1051 : is when the procedure has statically allocated (OWN) data
0608 1052 : which is used as a process-wide resource.
0608 1053 : Note: in order to prevent linker data truncation errors, all modules
0608 1054 : which are shared and are also linked in as private copies when
0608 1055 : \$\$entry points are referenced by non-shared routines called by the user
0608 1056 : must declare external references to code as general (not word displacement)
0608 1057 : even if the reference is to the same PSELECT!!!!!!
0608 1058 : Modules which have this dual life are: FOR\$\$ERROR, FOR\$\$VM, FOR\$\$SIGNAL.
0608 1059 : *****
0608 1060 : MAINTENANCE NOTE: The following \$\$ entry vectors can not have their
0608 1061 : specs changed, even though \$\$, since that would cause user programs
0608 1062 : with compatibility (unshared) routines to have to re-link in order to
0608 1063 : work correctly. Worse we would not want to increase the major ID in
0608 1064 : order for the image activator to catch the incompatibility, since
0608 1065 : that would cause all users to have to relink.
0608 1066 :-
0608 1067
0608 1068 : MODULE:FOR\$SCB
0608 1069 MAC JSB FOR FOR\$SCB_PUSH
0610 1070 MAC JSB FOR FOR\$SCB_POP
0618 1071 MAC JSB FOR FOR\$SCB_RET
0620 1072 MAC JSB FOR FOR\$SCB_GET ; Added for non-shared code
0628 1073 ; to load CCB from OTSSSA_CUR_LUB
0628 1074
0628 1075
0628 1076 : MODULE:FOR\$ERRSNS ; See also above FOR\$ERRSNS, FOR\$ERRSNS_W
0628 1077 MAC CALL FOR FOR\$ERRSNS_SAV
0630 1078

0630 1080 :+
 0630 1081 : Here starts all new entry points defined after VMS 1.00.
 0630 1082 : Unless a FUTURE above can be replaced, all new transfer
 0630 1083 : points MUST be appended to the end of this list!
 0630 1084 :-
 0630 1085
 0630 1086 MAC CALL FOR FOR\$IO_DC_V ; by ref above
 0638 1087 MAC CALL FOR FOR\$IO_GC_V
 0640 1088
 0640 1089 : MODULE FOR\$CVTRT
 0640 1090 MAC CALL FOR FOR\$CVT_G_TD
 0648 1091 MAC CALL FOR FOR\$CVT_G_TE
 0650 1092 MAC CALL FOR FOR\$CVT_G_TF
 0658 1093 MAC CALL FOR FOR\$CVT_G_TG
 0660 1094
 0660 1095 : MODULE OT\$CVTRT
 0660 1096 MAC CALL OTS OT\$CVT_T_G
 0668 1097
 0668 1098 : MODULE FOR\$CVTRT
 0668 1099 MAC CALL FOR FOR\$CVT_H_TD
 0670 1100 MAC CALL FOR FOR\$CVT_H_TE
 0678 1101 MAC CALL FOR FOR\$CVT_H_TF
 0680 1102 MAC CALL FOR FOR\$CVT_H_TG
 0688 1103
 0688 1104 : MODULE OT\$CVTRT
 0688 1105 MAC CALL OTS OT\$CVT_T_H
 0690 1106
 0690 1107 : MODULE OT\$CVTLT - Old entry points under FOR\$
 0690 1108 MAC CALL OTS OT\$CVT_L_TI
 0698 1109 MAC CALL OTS OT\$CVT_L_TO
 06A0 1110 MAC CALL OTS OT\$CVT_L_TZ
 06A8 1111 MAC CALL OTS OT\$CVT_L_TL
 06B0 1112
 06B0 1113 : MODULE FOR\$ENTRY continued from above
 06B0 1114 MAC CALL FOR FOR\$REWRITE_SF FOR\$IO_BEG
 06B8 1115 MAC CALL FOR FOR\$REWRITE_SO FOR\$IO_BEG
 06C0 1116 MAC CALL FOR FOR\$REWRITE_SU FOR\$IO_BEG
 06C8 1117 MAC CALL FOR FOR\$READ_IF FOR\$IO_BEG
 C6D0 1118 MAC CALL FOR FOR\$READ_IO FOR\$IO_BEG
 06D8 1119 MAC CALL FOR FOR\$WRITE_IF FOR\$IO_BEG
 06E0 1120 MAC CALL FOR FOR\$WRITE_IO FOR\$IO_BEG
 06E8 1121
 06E8 1122 : MODULE FOR\$DELETE
 06E8 1123 MAC CALL FOR FOR\$DELETE
 06F0 1124 MAC CALL FOR FOR\$DELETE_D
 06F8 1125
 06F8 1126 : MODULE FOR\$INQUIRE
 06F8 1127 MAC CALL FOR FOR\$INQUIRE
 0700 1128
 0700 1129 : MODULE FOR\$UNLOCK
 0700 1130 MAC CALL FOR FOR\$UNLOCK
 0708 1131
 0708 1132 : MODULE FOR\$ENTRY continued
 0708 1133 MAC CALL FOR FOR\$READ_KU FOR\$IO_BEG
 0710 1134
 0710 1135 : MODULE FOR\$LEX
 0710 1136 MAC NOVECT FOR FOR\$LGE

0710 1137 MAC NOVECT FOR FOR\$LGT
0710 1138 MAC NOVECT FOR FOR\$LLE
0710 1139 MAC NOVECT FOR FOR\$LLT
0710 1140
0710 1141 : MODULE LIB\$ADDX
0710 1142 MAC NOVECT LIB LIB\$ADDX
0710 1143 MAC NOVECT LIB LIB\$SUBX
0710 1144
0710 1145 : MODULE LIB\$ASN_WTH_MBX
0710 1146 MAC NOVECT LIB LIB\$ASN_WTH_MBX
0710 1147
0710 1148 : MODULE LIB\$DAY
0710 1149 MAC NOVECT LIB LIB\$DAY
0710 1150
0710 1151 : MODULE LIB\$EMODF
0710 1152 MAC NOVECT LIB LIB\$EMODF
0710 1153
0710 1154 : MODULE LIB\$EMODD
0710 1155 MAC NOVECT LIB LIB\$EMODD
0710 1156
0710 1157 : MODULE LIB\$EMODG
0710 1158 MAC NOVECT LIB LIB\$EMODG
0710 1159
0710 1160 : MODULE LIB\$EMODH
0710 1161 MAC NOVECT LIB LIB\$EMODH
0710 1162
0710 1163 : MODULE LIB\$EMULATE
0710 1164 MAC NOVECT LIB LIB\$EMULATE
0710 1165
0710 1166 : MODULE LIB\$ESTEMU
0710 1167 MAC NOVECT LIB LIB\$ESTEMU
0710 1168
0710 1169 : MODULE LIB\$GET_FOREIGN
0710 1170 MAC NOVECT LIB LIB\$GET_FOREIGN
0710 1171
0710 1172 : MODULE LIB\$POLYF
0710 1173 MAC NOVECT LIB LIB\$POLYF
0710 1174
0710 1175 : MODULE LIB\$POLYD
0710 1176 MAC NOVECT LIB LIB\$POLYD
0710 1177
0710 1178 : MODULE LIB\$POLYG
0710 1179 MAC NOVECT LIB LIB\$POLYG
0710 1180
0710 1181 : MODULE LIB\$POLYH
0710 1182 MAC NOVECT LIB LIB\$POLYH
0710 1183
0710 1184 : MODULE LIB\$SIM_TRAP
0710 1185 MAC NOVECT LIB LIB\$SIM_TRAP
0710 1186
0710 1187 : MODULE LIB\$TIMER
0710 1188 MAC NOVECT LIB LIB\$INIT_TIMER
0710 1189 MAC NOVECT LIB LIB\$SHOW_TIMER
0710 1190 MAC NOVECT LIB LIB\$STAT_TIMER
0710 1191 MAC NOVECT LIB LIB\$FREE_TIMER
0710 1192
0710 1193 : MODULE MTH\$AINT

0710	1194	MAC	NOVECT	MTH	MTH\$SAINT_R2
0710	1195				
0710	1196	: MODULE	MTH\$CVTDG		
0710	1197	MAC	NOVECT	MTH	MTH\$CVT_D_G
0710	1198	MAC	NOVECT	MTH	MTH\$CVT_G_D
0710	1199				
0710	1200	: MODULE	MTH\$DFLOOR		
0710	1201	MAC	NOVECT	MTH	MTH\$DFLOOR
0710	1202	MAC	NOVECT	MTH	MTH\$DFLOOR_R3
0710	1203				
0710	1204	: MODULE	MTH\$DIM		
0710	1205	MAC	NOVECT	MTH	MTH\$GDIM
0710	1206	MAC	NOVECT	MTH	MTH\$HDIM
0710	1207				
0710	1208	: MODULE	MTH\$DINT		
0710	1209	MAC	NOVECT	MTH	MTH\$DINT_R4
0710	1210				
0710	1211	: MODULE	MTH\$DTAN		
0710	1212	MAC	JSB	MTH	MTH\$DTAN_R7
0718	1213				
0718	1214	: MODULE	MTH\$FLOOR		
0718	1215	MAC	NOVECT	MTH	MTH\$FLOOR
0718	1216	MAC	NOVECT	MTH	MTH\$FLOOR_R1
0718	1217				
0718	1218	: MODULE	MTH\$GACOS		
0718	1219	MAC	NOVECT	MTH	MTH\$GACOS
0718	1220	MAC	NOVECT	MTH	MTH\$GACOS_R7
0718	1221				
0718	1222	: MODULE	MTH\$GASIN		
0718	1223	MAC	NOVECT	MTH	MTH\$GASIN
0718	1224	MAC	NOVECT	MTH	MTH\$GASIN_R7
0718	1225				
0718	1226	: MODULE	MTH\$GATANH		
0718	1227	MAC	NOVECT	MTH	MTH\$GATANH
0718	1228				
0718	1229	: MODULE	MTH\$GCOSH		
0718	1230	MAC	NOVECT	MTH	MTH\$GCOSH
0718	1231				
0718	1232	: MODULE	MTH\$GEXP		
0718	1233	MAC	NOVECT	MTH	MTH\$GEXP
0718	1234	MAC	NOVECT	MTH	MTH\$GEXP_R6
0718	1235				
0718	1236	: MODULE	MTH\$GFLOOR		
0718	1237	MAC	NOVECT	MTH	MTH\$GFLOOR
0718	1238	MAC	NOVECT	MTH	MTH\$GFLOOR_R3
0718	1239				
0718	1240	: MODULE	MTH\$GINT		
0718	1241	MAC	NOVECT	MTH	MTH\$GINT
0718	1242	MAC	NOVEC	MTH	MTH\$GINT_R4
0718	1243				
0718	1244	: MODULE	MTH\$GMAX1		
0718	1245	MAC	NOVECT	MTH	MTH\$GMAX1
0718	1246				
0718	1247	: MODULE	MTH\$GMIN1		
0718	1248	MAC	NOVECT	MTH	MTH\$GMIN1
0718	1249				
0718	1250	: MODULE	MTH\$GMOD		

0718 1251 MAC NOVECT MTH MTH\$GMOD
0718 1252 : MODULE MTH\$GNINT
0718 1253 MAC NOVECT MTH MTH\$GNINT
0718 1254 : MODULE MTH\$GPROD
0718 1255 MAC NOVECT MTH MTH\$GPROD
0718 1256 : MODULE MTH\$GSIGN
0718 1257 MAC NOVECT MTH MTH\$GSIGN
0718 1258 : MODULE MTH\$GSINCOS
0718 1259 MAC NOVECT MTH MTH\$GSIN
0718 1260 : MODULE MTH\$GSINH
0718 1261 MAC NOVECT MTH MTH\$GSINH
0718 1262 : MODULE MTH\$GCOS
0718 1263 MAC NOVECT MTH MTH\$GCOS
0718 1264 : MODULE MTH\$GSIN_R7
0718 1265 MAC NOVECT MTH MTH\$GSIN_R7
0718 1266 MAC NOVECT MTH MTH\$GCOS_R7
0718 1267 : MODULE MTH\$GSINH
0718 1268 MAC NOVECT MTH MTH\$GSINH
0718 1269 : MODULE MTH\$GSQRT
0718 1270 MAC NOVECT MTH MTH\$GSQRT
0718 1271 : MODULE MTH\$GSQRT_R5
0718 1272 MAC NOVECT MTH MTH\$GSQRT_R5
0718 1273 : MODULE MTH\$GTAN
0718 1274 MAC NOVECT MTH MTH\$GTAN
0718 1275 : MODULE MTH\$GTAN_R7
0718 1276 MAC NOVECT MTH MTH\$GTAN_R7
0718 1277 : MODULE MTH\$GTANH
0718 1278 MAC NOVECT MTH MTH\$GTANH
0718 1279 : MODULE MTH\$GTANH
0718 1280 MAC NOVECT MTH MTH\$GTANH
0718 1281 : MODULE MTH\$HACOS
0718 1282 MAC NOVECT MTH MTH\$HACOS
0718 1283 : MODULE MTH\$HACOS_R8
0718 1284 MAC NOVECT MTH MTH\$HACOS_R8
0718 1285 : MODULE MTH\$HASIN
0718 1286 MAC NOVECT MTH MTH\$HASIN
0718 1287 : MODULE MTH\$HASIN_R8
0718 1288 MAC NOVECT MTH MTH\$HASIN_R8
0718 1289 : MODULE MTH\$HCOSH
0718 1290 MAC NOVECT MTH MTH\$HCOSH
0718 1291 : MODULE MTH\$HCOSH
0718 1292 MAC NOVECT MTH MTH\$HCOSH
0718 1293 : MODULE MTH\$HEXP
0718 1294 MAC NOVECT MTH MTH\$HEXP
0718 1295 : MODULE MTH\$HEXP_R6
0718 1296 : MODULE MTH\$HFLOOR
0718 1297 MAC NOVECT MTH MTH\$HFLOOR
0718 1298 : MODULE MTH\$HFLOOR_R7
0718 1299 MAC NOVECT MTH MTH\$HFLOOR_R7
0718 1300 : MODULE MTH\$HINT
0718 1301 MAC NOVECT MTH MTH\$HINT
0718 1302 : MODULE MTH\$HINT_R8
0718 1303 : MODULE MTH\$HMAX1
0718 1304 MAC NOVECT MTH MTH\$HMAX1
0718 1305 : MODULE MTH\$HMIN1
0718 1306 MAC NOVECT MTH MTH\$HMIN1
0718 1307 : MODULE MTH\$HMIN1

0718 1308 MAC NOVECT MTH MTH\$HMIN1
0718 1309
0718 1310 ; MODULE MTH\$HMOD
0718 1311 MAC NOVECT MTH MTH\$HMOD
0718 1312
0718 1313 ; MODULE MTH\$HNINT
0718 1314 MAC NOVECT MTH MTH\$HNINT
0718 1315
0718 1316 ; MODULE MTH\$HSIGN
0718 1317 MAC NOVECT MTH MTH\$HSIGN
0718 1318
0718 1319 ; MODULE MTH\$HSINCOS
0718 1320 MAC NOVECT MTH MTH\$HSIN
0718 1321 MAC NOVECT MTH MTH\$HSIN_R5
0718 1322 MAC NOVECT MTH MTH\$HCOS
0718 1323 MAC NOVECT MTH MTH\$HCOS_R5
0718 1324
0718 1325 ; MODULE MTH\$HSINH
0718 1326 MAC NOVECT MTH MTH\$HSINH
0718 1327
0718 1328 ; MODULE MTH\$HSQRT
0718 1329 MAC NOVECT MTH MTH\$HSQRT
0718 1330 MAC NOVECT MTH MTH\$HSQRT_R8
0718 1331
0718 1332 ; MODULE MTH\$HTAN
0718 1333 MAC NOVECT MTH MTH\$HTAN
0718 1334 MAC NOVECT MTH MTH\$HTAN_R5
0718 1335
0718 1336 ; MODULE MTH\$HTANH
0718 1337 MAC NOVECT MTH MTH\$HTANH
0718 1338
0718 1339 ; MODULE MTH\$IIGNNT
0718 1340 MAC NOVECT MTH MTH\$IIGNNT
0718 1341
0718 1342 ; MODULE MTH\$IIHNNT
0718 1343 MAC NOVECT MTH MTH\$IIHNNT
0718 1344
0718 1345 ; MODULE MTH\$JIGNNT
0718 1346 MAC NOVECT MTH MTH\$JIGNNT
0718 1347
0718 1348 ; MODULE MTH\$JIHNNT
0718 1349 MAC NOVECT MTH MTH\$JIHNNT
0718 1350
0718 1351 ; MODULE MTH\$TAN
0718 1352 MAC JSB MTH MTH\$TAN_R4
0720 1353
0720 1354 ; MODULE MTH\$SGN
0720 1355 MAC NOVECT MTH MTH\$SGN
0720 1356 MAC NOVECT MTH MTH\$SGN_R1
0720 1357
0720 1358 ; MODULE OTSSPOWGG
0720 1359 MAC NOVECT OTS OTSSPOWGG
0720 1360
0720 1361 ; MODULE OTSSPOWGJ
0720 1362 MAC NOVECT OTS OTSSPOWGJ
0720 1363
0720 1364 ; MODULE OTSSPOWHJ

0720 1365 MAC NOVECT OTS OTSSPOWHJ_R3
0720 1366 :
0720 1367 : MODULE OTSSDIVCD
0720 1368 MAC NOVECT OTS OTSSDIVCD_R3
0720 1369 :
0720 1370 : MODULE OTSSDIVCG
0720 1371 MAC NOVECT OTS OTSSDIVCG_R3
0720 1372 :
0720 1373 : MODULE OTSSMULCD
0720 1374 MAC NOVECT OTS OTSSMULCD_R3
0720 1375 :
0720 1376 : MODULE OTSSMULCG
0720 1377 MAC NOVECT OTS OTSSMULCG_R3
0720 1378 :
0720 1379 : MODULE MTH\$CDABS
0720 1380 MAC NOVECT MTH MTH\$CDABS
0720 1381 :
0720 1382 : MODULE MTH\$DCONJG
0720 1383 MAC NOVECT MTH MTH\$DCONJG
0720 1384 :
0720 1385 : MODULE MTH\$CDEXP
0720 1386 MAC NOVECT MTH MTH\$CDEXP
0720 1387 :
0720 1388 : MODULE MTH\$CDLOG
0720 1389 MAC NOVECT MTH MTH\$CDLOG
0720 1390 :
0720 1391 : MODULE MTH\$CDSINCOS
0720 1392 MAC NOVECT MTH MTH\$CDCOS
0720 1393 MAC NOVECT MTH MTH\$CDSIN
0720 1394 :
0720 1395 : MODULE MTH\$CDSQRT
0720 1396 MAC NOVECT MTH MTH\$CDSQRT
0720 1397 :
0720 1398 : MODULE MTH\$CGABS
0720 1399 MAC NOVECT MTH MTH\$CGABS
0720 1400 :
0720 1401 : MODULE MTH\$GCONJG
0720 1402 MAC NOVECT MTH MTH\$GCONJG
0720 1403 :
0720 1404 : MODULE MTH\$CGEXP
0720 1405 MAC NOVECT MTH MTH\$CGEXP
0720 1406 :
0720 1407 : MODULE MTH\$CGLOG
0720 1408 MAC NOVECT MTH MTH\$CGLOG
0720 1409 :
0720 1410 : MODULE MTH\$CGSINCOS
0720 1411 MAC NOVECT MTH MTH\$CGCOS
0720 1412 MAC NOVECT MTH MTH\$CGSIN
0720 1413 :
0720 1414 : MODULE MTH\$CGSQRT
0720 1415 MAC NOVECT MTH MTH\$CGSQRT
0720 1416 :
0720 1417 : MODULE OTSSPOWCC
0720 1418 MAC NOVECT OTS OTSSPOWCC
0720 1419 :
0720 1420 : MODULE OTSSPOWCDCD
0720 1421 MAC NOVECT OTS OTSSPOWCDCD_R3

0720 1422
0720 1423 : MODULE OTSSPOWCDJ
0720 1424 MAC NOVECT OTS OTSSPOWCDJ_R3
0720 1425
0720 1426 : MODULE OTSSPOWCGCG
0720 1427 MAC NOVECT OTS OTSSPOWCGCG_R3
0720 1428
0720 1429 : MODULE OTSSPOWCGJ
0720 1430 MAC NOVECT OTS OTSSPOWCGJ_R3
0720 1431
0720 1432 : MODULE OTSSPOWHH
0720 1433 MAC NOVECT OTS OTSSPOWHH_R3
0720 1434
0720 1435 : MODULE MTH\$SQRT
0720 1436 MAC JSB MTH MTH\$SQRT_R3
0728 1437
0728 1438 ;+
0728 1439 : The following routine is called from FOR\$ERROR, therefore
0728 1440 : it must be vectored.
0728 1441 ;-
0728 1442
0728 1443 : MODULE FOR\$CB (continued)
0728 1444 MAC CALL FOR FOR\$FP_MATCH
0730 1445
0730 1446 : MODULE FOR\$READ_SN
0730 1447 MAC CALL FOR FOR\$READ_SN FOR\$IO_BEG
0738 1448
0738 1449 : MODULE FOR\$WRITE_SN
0738 1450 MAC CALL FOR FOR\$WRITE_SN FOR\$IO_BEG
0740 1451
0740 1452 : MODULE FOR\$IO_ELEM (continued)
0740 1453 MAC CALL FOR FOR\$IO_X_SB
0748 1454 MAC CALL FOR FOR\$IO_X_NL
0750 1455 MAC CALL FOR FOR\$IO_X_SE
0758 1456
0758 1457 : MODULE OTSSCVTLT (continued)
0758 1458 MAC CALL OTS OTSSCVTLT
0760 1459
0760 1460 : MODULE OTSSCVTOL (continued)
0760 1461 MAC CALL OTS OTSSCVTOL
0768 1462
0768 1463 : MODULE OTSSCVTTF
0768 1464 MAC CALL OTS OTSSCVTTF
0770 1465
0770 1466 : MODULE LIB\$ATTACH
0770 1467 MAC CALL LIB LIB\$ATTACH
0778 1468
0778 1469 : MODULE LIB\$SPAWN
0778 1470 MAC CALL LIB LIB\$SPAWN
0780 1471
0780 1472 : MODULE LIB\$GET_OPCODE
0780 1473 MAC CALL LIB LIB\$GET_OPCODE
0788 1474
0788 1475 : MODULE FOR\$RAB
0788 1476 MAC CALL FOR FOR\$RAB
0790 1477
0790 1478 ;+

0790 1479 ; The following three entry points are for the "kernel" floating output
0790 1480 ; conversion routines. Although they are "double-dollar" names, they are
0790 1481 ; vectored so that future language-specific shareable images can use them.
0790 1482 ;-
0790 1483
0790 1484 : MODULE OTSS\$CVTDT
0790 1485 MAC JSB OTS OTSS\$CVT_D_T_R8
0798 1486
0798 1487 : MODULE OTSS\$CVTRT
0798 1488 MAC JSB OTS OTSS\$CVT_G_T_R8
07A0 1489 MAC JSB OTS OTSS\$CVT_H_T_R8
07A8 1490
07A8 1491 ;+
07A8 1492 ; The following entries are present only so that there will be references
07A8 1493 ; to these symbols in this module. Without them, the linker complains.
07A8 1494 ; Note that these entries are not universal, so they cannot be referenced
07A8 1495 ; by those linking to this image.
07A8 1496 ;-
07A8 1497
00000000'GF 0000' 07A8 1498 .MASK BASS\$HANDLER
17 07AA 1499 JMP G^BASS\$HANDLER
00000000'GF 0000' 07B0 1500 .MASK COB\$HANDLER
17 07B2 1501 JMP G^COB\$HANDLER
00000000'GF 0000' 07B8 1502 .MASK FOR\$IO_BEG
17 07BA 1503 JMP G^FOR\$IO_BEG
07C0 1504

0800 1517 :+					
0800 1518 : The following entry points are for the string library.					
0800 1519 : The JSB entry points are later.					
0800 1520 :-					
0800 1521 MAC CALL STR STR\$CONCAT	: Concatenate strings				
0808 1522 MAC CALL STR STR\$COPY_DX	: Copy by descriptor				
0810 1523 MAC CALL STR STR\$COPY_R	: Copy by reference				
0818 1524 MAC CALL STR STR\$FREE_T DX	: Free a string				
0820 1525 MAC CALL STR STR\$GET1_DX	: Allocate a string				
0828 1526 MAC NOVECT STR STR\$ADD	: Add two strings				
0828 1527 MAC NOVECT STR STR\$MUL	: Multiply two strings				
0828 1528 MAC NOVECT STR STR\$RECIP	: Take 1/ a string				
0828 1529 MAC NOVECT STR STR\$ROUND	: Arithmeticly round a strin				
0828 1530 MAC CALL STR STR\$LEFT	: Take left part of string				
0830 1531 MAC NOVECT STR STR\$LEFT_R8	: (JSB entry point)				
0830 1532 MAC CALL STR STR\$LEN_EXTR	: Extract from a string by l				
0838 1533 MAC NOVECT STR STR\$LEN_EXTR_R8	: (JSB entry point)				
0838 1534 MAC CALL STR STR\$POS_EXTR	: Extract from a string by p				
0840 1535 MAC NOVECT STR STR\$POS_EXTR_R8	: (JSB entry point)				
0840 1536 MAC CALL STR STR\$POSITION	: (JSB entry point)				
0848 1537 MAC NOVECT STR STR\$POSITION_R6	: Take right part of a strin				
0848 1538 MAC CALL STR STR\$RIGHT	: (JSB entry point)				
0850 1539 MAC NOVECT STR STR\$RIGHT_R8	: (JSB entry point)				
0850 1540 MAC CALL STR STR\$DUPL_CHAR	: Make lots of a character				
0858 1541 MAC CALL STR STR\$TRIM	: Remove trailing blanks				
0860 1542 MAC FUTURE STR STR\$FUTURE_1	: Reserved for future expans				
0868 1543 MAC FUTURE STR STR\$FUTURE_2					
0870 1544 MAC FUTURE STR STR\$FUTURE_3					
0878 1545 :+ String condition codes					
0878 1546 :-					
0878 1547 MAC SYM STR STR\$_DIVBY_ZER	: Divide by zero				
0878 1548 MAC SYM STR STR\$_FATINTEERR	: Fatal internal error				
0878 1549 MAC SYM STR STR\$_ILLSTRCLA	: Illegal string class				
0878 1550 MAC SYM STR STR\$_ILLSTRPOS					
0878 1551 MAC SYM STR STR\$_ILLSTRSPE					
0878 1552 MAC SYM STR STR\$_INSVIRMEM					
0878 1553 MAC SYM STR STR\$_MATCH					
0878 1554 MAC SYM STR STR\$_NEGSTRLEN					
0878 1555 MAC SYM STR STR\$_NOMATCH					
0878 1556 MAC SYM STR STR\$_NORMAL					
0878 1557 MAC SYM STR STR\$_STRIS_INT					
0878 1558 MAC SYM STR STR\$_STRTOOLON					
0878 1559 MAC SYM STR STR\$_TRU					
0878 1560 MAC SYM STR STR\$_WRONUMARG					
0878 1561 MAC SYM STR					
0878 1562					

0878 1564 :+
0878 1565 : The following entry points are generated by the BASIC-PLUS-2
0878 1566 : compiler. The current arrangement of which are vectored is tentative.
0878 1567 :-
0878 1568 :
0878 1569 : ARITHMETIC CODE SUPPORT
0878 1570 :
0878 1571 MAC NOVECT BAS BASSPOWII ; Integer(w) ** Integer(w)
0878 1572 MAC JSB BAS BASSSCALE_D_R1 ; Scale a number
0880 1573 MAC NOVECT BAS BASSPOWJJ ; Long ** Long
0880 1574 MAC JSB BAS BASSDSCALE_D_R1 ; Descale a number
0888 1575 MAC NOVECT BAS BASSPOWRJ ; Float ** Long
0888 1576 MAC NOVECT BAS BASSPOWRR ; Float ** Float
0888 1577 MAC NOVECT BAS BASSPOWDJ ; Double ** Long
0888 1578 MAC NOVECT BAS BASSPOWDD ; Double ** Double
0888 1579 MAC NOVECT BAS BASSRND_F_R1 ; Return random number
0888 1580 MAC NOVECT BAS BASSRANDOMIZE ; Perturb the random seed
0888 1581 MAC CALL BAS BASSCMPF_APP ; Approximate float compare
0890 1582 MAC CALL BAS BASSCMPD_APP ; Approximate double compar
0898 1583 :
0898 1584 : STRING CODE SUPPORT
0898 1585 :
0898 1586 MAC NOVECT BAS BASS\$CHANGE_NA_S ; CHANGE A% to A\$
0898 1587 MAC NOVECT BAS BASS\$CHANGE_S_NA ; CHANGE A\$ to A%

0898 1589 :					
0898 1590 :					STRING FUNCTIONS
0898 1591 :					
0898 1592	MAC	CALL	BAS	BASSRSET	; String move, right justif
08A0 1593	MAC	CALL	BAS	BASSRSET_R	By-ref entry point
08A8 1594	MAC	CALL	BAS	BASSEDIT	String editing
08B0 1595	MAC	NOVECT	BAS	BASSFORMAT_F	Floating FORMATS
08B0 1596	MAC	NOVECT	BAS	BASSFORMAT_D	Double FORMATS
08B0 1597	MAC	CALL	BAS	BASSINSTR	Match substring
08B8 1598	MAC	NOVECT	BAS	BASSRAD	RADIX 50
08B8 1599	MAC	NOVECT	BAS	BASSRAD50	RADIX 50
08B8 1600	MAC	NOVECT	BAS	BASSSTOP	STOP statement (*** here
08B8 1601	MAC	CALL	BAS	BASSSTR_F	Return binary->ASCII numb
08C0 1602	MAC	CALL	BAS	BASSSTR_D	Ditto for double
08C8 1603	MAC	CALL	BAS	BASSSTR_L	Ditto for longword
08D0 1604	MAC	CALL	BAS	BASSNUM_F	Return binary >ASCII numb
08D8 1605	MAC	CALL	BAS	BASSNUM_D	Ditto for double
08E0 1606	MAC	CALL	BAS	BASSNUM_L	Ditto for longword
08E8 1607	MAC	CALL	BAS	BASSNUMT_F	Return binary->ASCII numb
08F0 1608	MAC	CALL	BAS	BASSNUM1_D	Ditto for double
08F8 1609	MAC	CALL	BAS	BASSNUM1_L	Ditto for longword
0900 1610	MAC	NOVECT	BAS	BASSTAB	Tab over x spaces
0900 1611	MAC	NOVECT	BAS	BASSTIME_T	24 hour time string
0900 1612	MAC	CALL	BAS	BASSVAL_C	Return ASCII->binary stri
0908 1613	MAC	CALL	BAS	BASSVAL_F	Ditto for floating
0910 1614	MAC	CALL	BAS	BASSVAL_D	Ditto for double
0918 1615	MAC	NOVECT	BAS	BASSXLATE	Translate a string

0918 1617 ;					
0918 1618 ;					
0918 1619 ;				STRING ARITHMETIC	
0918 1620 ;	MAC	NOVECT	BAS	BASS\$COMP	: String arith compare
0918 1621 ;	MAC	NOVECT	BAS	BASS\$DIF	: S.A. difference
0918 1622 ;	MAC	NOVECT	BAS	BASS\$PLACE	: S.A. precision
0918 1623 ;	MAC	NOVECT	BAS	BASS\$PROD	: S.A. multiplication
0918 1624 ;	MAC	NOVECT	BAS	BASS\$QUO	: S.A. division
0918 1625 ;	MAC	NOVECT	BAS	BASS\$SUM	: S.A. addition
0918 1626 ;					
0918 1627 ;				PROCEDURE ACTIVATION	
0918 1628 ;					
0918 1629 ;	MAC	JSB	BAS	BASS\$INIT_R8	: Main program initializer
0920 1630 ;	MAC	JSB	BAS	BASS\$INIT_DEF_R8	: DEF function initializer
0928 1631 ;	MAC	JSB	BAS	BASS\$INIT_DFS_R8	: DEF* function initializer
0930 1632 ;	MAC	CALL	BAS	BASS\$INIT_GOSUB	: GOSUB initializer
0938 1633 ;	MAC	NOVECT	BAS	BASS\$INIT_C_GSB	: ON-GOSUB initializer
0938 1634 ;	MAC	JSB	BAS	BASS\$END_R8	: Main program ender
0940 1635 ;	MAC	JSB	BAS	BASS\$END_DEF_R8	: DEF function end
0948 1636 ;	MAC	JSB	BAS	BASS\$END_DFS_R8	: DEF* function end
0950 1637 ;	MAC	JSB	BAS	BASS\$END_GSB_R8	: GOSUB end
0958 1638 ;					
0958 1639 ;				ERROR HANDLING	
0958 1640 ;					
0958 1641 ;	MAC	CALL	BAS	BASS\$ON_ERR_Z	: ON ERROR GOTO 0
0960 1642 ;	MAC	CALL	BAS	BASS\$ON_ERR_BK	: ON ERROR GOBACK
0968 1643 ;	MAC	CALL	BAS	BASS\$RESUME	: RESUME line num
0970 1644 ;	MAC	CALL	BAS	BASS\$RESUME_Z	: RESUME
0978 1645 ;	MAC	CALL	BAS	BASS\$ERR	: ERR variable
0980 1646 ;	MAC	CALL	BAS	BASS\$ERL	: ERL variable
0988 1647 ;	MAC	CALL	BAS	BASS\$ERN	: ERNS variable
0990 1648 ;	MAC	CALL	BAS	BASS\$ERT	: ERTS variable
0998 1649 ;					
0998 1650 ;	MAC	CALL	BAS	BASS\$HANDLER	BASS\$\$HANDLER

09A0 1652 :					
09A0 1653 :					Scalar (non matrix) I/O
09A0 1654 :					
09A0 1655	MAC	CALL	BAS	BASS\$INPUT	: Initialize for INPUT unit
09A8 1656	MAC	CALL	BAS	BASS\$INPUT	Ditto LINPUT unit
09B0 1657	MAC	CALL	BAS	BASS\$INPUT_LINE	Ditto INPUT LINE unit
09B8 1658	MAC	CALL	BAS	BASS\$READ	Ditto READ
09C0 1659	MAC	CALL	BAS	BASS\$PRINT	Ditto PRINT
09C8 1660	MAC	CALL	BAS	BASS\$PRINT USING	Ditto PRINT USING
09D0 1661	MAC	CALL	BAS	BASS\$IO_END	End of I/O list
09D8 1662	MAC	CALL	BAS	BASS\$IN_W_R	INPUT word
09E0 1663	MAC	CALL	BAS	BASS\$IN_L_R	INPUT long
09E8 1664	MAC	CALL	BAS	BASS\$IN_F_R	INPUT float
09F0 1665	MAC	CALL	BAS	BASS\$IN_D_R	INPUT double
09F8 1666	MAC	CALL	BAS	BASS\$IN_T_DX	INPUT string
0A00 1667	MAC	CALL	BAS	BASS\$OUT_V_S	PRINT long(word) ;
0A08 1668	MAC	CALL	BAS	BASS\$OUT_L_V_B	PRINT long(word)
0A10 1669	MAC	CALL	BAS	BASS\$OUT_L_V_C	PRINT long(word) ,
0A18 1670	MAC	CALL	BAS	BASS\$OUT_F_V_S	PRINT float ;
0A20 1671	MAC	CALL	BAS	BASS\$OUT_F_V_B	PRINT float
0A28 1672	MAC	CALL	BAS	BASS\$OUT_F_V_C	PRINT float ,
0A30 1673	MAC	CALL	BAS	BASS\$OUT_D_V_S	PRINT double ;
0A38 1674	MAC	CALL	BAS	BASS\$OUT_D_V_B	PRINT double
0A40 1675	MAC	CALL	BAS	BASS\$OUT_D_V_C	PRINT double ,
0A48 1676	MAC	CALL	BAS	BASS\$OUT_T_DX_S	PRINT string ;
0A50 1677	MAC	CALL	BAS	BASS\$OUT_T_DX_B	PRINT string ,
0A58 1678	MAC	CALL	BAS	BASS\$OUT_T_DX_C	PRINT string ,
0A60 1679 :					
0A60 1680 : Matrix I/O					
0A60 1681 :					
0A60 1682	MAC	NOVECT	BAS	BASS\$OUT_MAT_S	: Output element xmtr
0A60 1683	MAC	NOVECT	BAS	BASS\$OUT_MAT_B	
0A60 1684	MAC	NOVECT	BAS	BASS\$OUT_MAT_C	
0A60 1685	MAC	NOVECT	BAS	BASS\$IN_MAT	
0A60 1686	MAC	CALL	BAS	BASS\$MAT_PRINT	Input element xmtr
0A68 1687	MAC	CALL	BAS	BASS\$MAT_INPUT	Init for MAT PRINT
0A70 1688	MAC	CALL	BAS	BASS\$MAT_LINPUT	for MAT INPUT
0A78 1689	MAC	CALL	BAS	BASS\$MAT_READ	for MAT LINPUT
0A80 1690	MAC	NOVECT	BAS	BASS\$NUM	for MAT READ
0A80 1691	MAC	NOVECT	BAS	BASS\$NUM2	: NUM var (mat)
0A80 1692					: NUM2 var (mat)
0A80 1693 :					
0A80 1694 : RMS I/O					
0A80 1695 :					
0A80 1696	MAC	CALL	BAS	BASS\$OPEN	: OPEN (all)
0A88 1697	MAC	CALL	BAS	BASS\$CLOSE	CLOSE (all)
0A90 1698	MAC	CALL	BAS	BASS\$GET	Sequential GET
0A98 1699	MAC	CALL	BAS	BASS\$GET_RECORD	Random GET
0AA0 1700	MAC	CALL	BAS	BASS\$GET_KEY	Indexed GET
0AA8 1701	MAC	CALL	BAS	BASS\$PUT	Sequential PUT
0AB0 1702	MAC	CALL	BAS	BASS\$PUT_RECORD	Random PUT
0AB8 1703	MAC	CALL	BAS	BASS\$PUT_COUNT	Sequential PUT w/COUNT
0AC0 1704	MAC	CALL	BAS	BASS\$PUT_REC_CNT	Random PUT w/COUNT
0AC8 1705	MAC	CALL	BAS	BASS\$FIND	Sequential FIND
0AD0 1706	MAC	CALL	BAS	BASS\$FIND_RECORD	Random FIND
0AD8 1707	MAC	CALL	BAS	BASS\$FIND_KEY	Indexed FIND
0AE0 1708	MAC	CALL	BAS	BASS\$DELETE	DELETE

- Define entry vectors for VMSRTL^{H 10}16-SEP-1984 02:15:59 VAX/VMS Macro V04-00
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0AE8 1709	MAC	CALL	BAS	BASS\$UPDATE	: UPDATE
0AF0 1710	MAC	CALL	BAS	BASS\$UPDATE_COUN	: UPDATE w/COUNT
0AF8 1711	MAC	CALL	BAS	BASS\$RESTORE	: RESTORE
0B00 1712	MAC	CALL	BAS	BASS\$RESTORE_KEY	: Indexed RESTORE
0B08 1713	MAC	CALL	BAS	BASS\$SCRATCH	: SCRATCH
0B10 1714	MAC	CALL	BAS	BASS\$UNLOCK	: Release
0B18 1715	MAC	CALL	BAS	BASS\$FREE	: FREE

OB20 1717 :					
OB20 1718 :	RSTS/E COMPATIBILITY				
OB20 1719 :					
OB20 1720 : MAC NOVECT BAS BASS\$CVT_W_S : CVT%					
OB20 1721 : MAC NOVECT BAS BASS\$CVT_S_W : CVT%					
OB20 1722 : MAC NOVECT BAS BASS\$CVT_F_S : CVTF\$					
OB20 1723 : MAC NOVECT BAS BASS\$CVT_D_S : CVTD\$					
OB20 1724 : MAC NOVECT BAS BASS\$CVT_S_F : CVTF					
OB20 1725 : MAC NOVECT BAS BASS\$CVT_S_D : CVTSD					
OB20 1726 : MAC NOVECT BAS BASS\$FSS : File string scan					
OB20 1727 : MAC NOVECT BAS BASS\$FSP : File info					
OB20 1728 : MAC NOVECT BAS BASS\$SYS : Sys calls					
OB20 1729 : MAC NOVECT BAS BASS\$CHAIN : CHAIN statement					
OB20 1730 : MAC NOVECT BAS BASS\$PEEK : Examine RSTS/E memory					
OB20 1731 :					
OB20 1732 :	MISC				
OB20 1733 :					
OB20 1734 : MAC CALL BAS BASS\$CCPOS : CCPPOS func					
OB28 1735 : MAC NOVECT BAS BASS\$ECHO : Enable echo					
OB28 1736 : MAC NOVECT BAS BASS\$ONECHR : *****					
OB28 1737 : MAC NOVECT BAS BASS\$NOECHO : Disable echo					
OB28 1738 : MAC NOVECT BAS BASS\$RCTRL0 : Disable CTRL 0					
OB28 1739 : MAC NOVECT BAS BASS\$CTRL0 : Cause control 0					
OB28 1740 : MAC CALL BAS BASS\$RESTORE_DAT : RESTORE data					
OB30 1741 : MAC CALL BAS BASS\$RECOUNT : RECOUNT var					
OB38 1742 : MAC CALL BAS BASS\$STATUS : STATUS var					
OB40 1743 : MAC NOVECT BAS BASS\$MAGTAPE : MAGTAPE func					
OB40 1744 : MAC NOVECT BAS BASS\$TIME_F : Floating time values					
OB40 1745 : MAC NOVECT BAS BASS\$SLEEP : SLEEP statement					
OB40 1746 : MAC NOVECT BAS BASS\$NAME_AS : NAME AS statement					
OB40 1747 : MAC NOVECT BAS BASS\$KILL : KILL erase					
OB40 1748 : MAC CALL BAS BASS\$BUFSIZ : BUFSIZ func					
OB48 1749 :					
OB48 1750 :	MOVE STATEMENT				
OB48 1751 :					
OB48 1752 : MAC NOVECT BAS BASS\$MOVE_TO : Start a MOVE TO statement					
OB48 1753 : MAC NOVECT BAS BASS\$MOVE_FROM : Start a MOVE FROM statemen					
OB48 1754 : MAC NOVECT BAS BASS\$MOVE_END : End of a MOVE statement					
OB48 1755 : MAC NOVECT BAS BASS\$MOVE_ARRAY : MOVE an array					
OB48 1756 :					

0B48 1758 :					
0B48 1759 :	MATRIX Arithmetic				
0B48 1760 :					
0B48 1761 :	MAC	NOVECT	BAS	BASS\$DET_F	: Determinate
0B48 1762 :	MAC	NOVECT	BAS	BASS\$DET_D	: Determinate
0B48 1763 :	MAC	NOVECT	BAS	BASS\$MAT_NULL	: Null out string matrix
0B48 1764 :	MAC	NOVECT	BAS	BASS\$MAT_ASSIGN	: Matrix assignments
0B48 1765 :	MAC	NOVECT	BAS	BASS\$MAT_INIT	: Matrix initialize(0 or 1)
0B48 1766 :	MAC	NOVECT	BAS	BASS\$MAT_IDN	: Matrix identity
0B48 1767 :	MAC	NOVECT	BAS	BASS\$MAT_ADD	: Matrix addition
0B48 1768 :	MAC	NOVECT	BAS	BASS\$MAT_SUB	: Matrix subtraction
0B48 1769 :	MAC	NOVECT	BAS	BASS\$MAT_MUL	: Matrix multiplication
0B48 1770 :	MAC	NOVECT	BAS	BASS\$MAT_SCA_MUL	: Matrix scalar multiplicat
0B48 1771 :	MAC	NOVECT	BAS	BASS\$MAT_TRN	: Matrix transposition
0B48 1772 :	MAC	NOVECT	BAS	BASS\$MAT_INV	: Matrix inversion
0B48 1773 :	MAC	NOVECT	BAS	BASS\$MAT_REDIM	: Single redimension
0B48 1774 :					
0B48 1775 :	CODE SUPPORT				
0B48 1776 :					
0B48 1777 :	MAC	CALL	BAS	BASS\$CHR	: Return character for bina
0B50 1778 :					
0B50 1779 :	VIRTUAL ARRAYS				
0B50 1780 :					
0B50 1781 :	MAC	NOVECT	BAS	BASS\$FET_FA_W_R8	: Fetch a word from virtual
0B50 1782 :	MAC	NOVECT	BAS	BASS\$FET_FA_L_R8	
0B50 1783 :	MAC	NOVECT	BAS	BASS\$FET_FA_F_R8	
0B50 1784 :	MAC	NOVECT	BAS	BASS\$FET_FA_D_R8	
0B50 1785 :	MAC	NOVECT	BAS	BASS\$FETCH_BFA	
0B50 1786 :	MAC	NOVECT	BAS	BASS\$STO_FA_W_R8	: Store a word in a virtual
0B50 1787 :	MAC	NOVECT	BAS	BASS\$STO_FA_L_R8	
0B50 1788 :	MAC	NOVECT	BAS	BASS\$STO_FA_F_R8	
0B50 1789 :	MAC	NOVECT	BAS	BASS\$STO_FA_D_R8	
0B50 1790 :	MAC	NOVECT	BAS	BASS\$STORE_BFA	
0B50 1791 :	MAC	NOVECT	BAS	BASS\$STO_FA_RDX	

0B50	1793	:				
0B50	1794	:	FIELD STATEMENT			
0B50	1795	:				
0B50	1796	MAC	NOVECT	BAS	BASSFIELD_SET	; Set up FIELD var
0B50	1797	MAC	NOVECT	BAS	BASSFIELD_COPY	; Copy a FIELDed var
0B50	1798	MAC	NOVECT	BAS	BASSFIELD_CLEAR	; Clear the fielded attribu
0B50	1799	MAC	NOVECT	BAS	BASSFIELD_PURGE	; ?
0B50	1800	MAC	NOVECT	BAS	BASSFIELD_OPEN	; ?
0B50	1801	MAC	NOVECT	BAS	BASSFIELD_CLOSE	; ?
0B50	1802	:				
0B50	1803	:	MISC			
0B50	1804	:				
0B50	1805	MAC	NOVECT	BAS	BASSDATE_T	; Return an ASCII string w/
0B50	1806	MAC	CALL	BAS	BASSERROR	; Signal errors from compil
0B58	1807	MAC	NOVECT	LIB	LIB\$DATE_TIME	; System standard date/time
0B58	1808	MAC	NOVECT	BAS	BASSMARGIN	; MARGIN sta/MAR% funct
0B58	1809	MAC	NOVECT	BAS	BASSNOMARGIN	; NOMARGIN statement
0B58	1810	:				
0B58	1811	:	LIB\$PARSE and its subroutines			
0B58	1812	:				
0B58	1813	MAC	CALL	LIB	LIB\$PARSE	
0B60	1814	MAC	NOVECT	LIB	LIB\$CVT_DTB	
0B60	1815	MAC	NOVECT	LIB	LIB\$CVTHTB	
0B60	1816	MAC	NOVECT	LIB	LIB\$CVTOTB	

0B60 1818 ;
0B60 1819 ; Entry points used by the BASIC compiler to support the RUN command.
0B60 1820 ;
0B60 1821 MAC NOVECT BAS BASSRUN_INIT ; Initialize for RUN
0B60 1822 MAC CALL BAS BASSPUSA_ERR ; Save error status
0B68 1823 MAC CALL BAS BASSPOP_ERR ; Restore error status
0B70 1824 MAC NOVECT BAS BASSINIT_IOL ; Start immediate code

0B70 1826 :
0B70 1827 : Internal BASIC entry points that are likely to need to be vectored
0B70 1828 : because routines unlikely to be vectored call them.
0B70 1829 :
0B70 1830 MAC JSB BAS BASS\$CB_POP
0B78 1831 MAC JSB BAS BASS\$CB_PUSH
0B80 1832 MAC JSB BAS BASS\$CB_GET
0B88 1833 MAC CALL BAS BASS\$ERR_INIT
0B90 1834 MAC CALL BAS BASS\$OPEN_ZERO
0B98 1835 MAC CALL BAS BASS\$RECOO_INIT
0BA0 1836 MAC CALL BAS BASS\$BLNK_LINE
0BA8 1837 MAC CALL BAS BASS\$SIGNAL
0BB0 1838 MAC CALL BAS BASS\$SIGNAL_IO
0BB8 1839 MAC CALL BAS BASS\$STATU_INIT
0BC0 1840 MAC CALL BAS BASS\$STOP
0BC8 1841 MAC CALL BAS BASS\$STOP_IO
0BD0 1842 MAC CALL BAS BASS\$CANTYPEAHEAD
0BD8 1843 MAC JSB BAS BASS\$SCALE_L_R1
0BE0 1844 MAC JSB BAS BASS\$SCALE_RT
0BE8 1845 MAC CALL BAS BASS\$STOP_RMS
0BF0 1846 MAC CALL BAS BASS\$FORMAT_INT
0BF8 1847 MAC CALL BAS BASS\$CLOSE_ALL
0C00 1848 MAC CALL BAS BASS\$UDF_R1
0C08 1849 MAC CALL BAS BASS\$UDF_WL1
0C10 1850 :
0C10 1851 : JSB entry points to the string routines.
0C10 1852 :
0C10 1853 MAC JSB STR STR\$COPY_DX_R8
0C18 1854 MAC JSB STR STR\$COPY_R_R8
0C20 1855 MAC JSB STR STR\$DUPL_CCHARR8
0C28 1856 MAC JSB STR STR\$FREET_DX_R4
0C30 1857 MAC JSB STR STR\$GET1_DX_R4
0C38 1858 MAC JSB STR STR\$LEFT_R8
0C40 1859 MAC JSB STR STR\$LEN_EXTR_R8
0C48 1860 MAC JSB STR STR\$POSITION_R6
0C50 1861 MAC JSB STR STR\$POS_EXTR_R8
0C58 1862 MAC JSB STR STR\$RIGHT_R8
0C60 1863 :
0C60 1864 : More STR\$ entry points. These modules must be in the sharable
0C60 1865 : library, even though they are not used much, because they use
0C60 1866 : string interlocks.
0C60 1867 :
0C60 1868 MAC CALL STR STR\$APPEND
0C68 1869 MAC CALL STR STR\$COMPARE
0C70 1870 MAC CALL STR STR\$COMPARE_EQL
0C78 1871 MAC CALL STR STR\$PREFIX
0C80 1872 MAC CALL STR STR\$REPLACE
0C88 1873 MAC JSB STR STR\$REPLACE_R8
0C90 1874 MAC CALL STR STR\$TRANSLATE
0C98 1875 MAC CALL STR STR\$UPCASE

OCAO 1877 :
OCAO 1878 : The BASIC error codes. First the small integer symbols.
OCAO 1879 :
OCAO 1880 MAC SYM BAS BASSK_ACCDEVUSE
OCAO 1881 MAC SYM BAS BASSK_ARGDONMAT
OCAO 1882 MAC SYM BAS BASSK_ARGOUTBOU
OCAO 1883 MAC SYM BAS BASSK_ARGTOOLAR
OCAO 1884 MAC SYM BAS BASSK_ARRMUSSAM
OCAO 1885 MAC SYM BAS BASSK_ARRMUSSQU
OCAO 1886 MAC SYM BAS BASSK_BADDIRDEV
OCAO 1887 MAC SYM BAS BASSK_BADLINNUM
OCAO 1888 MAC SYM BAS BASSK_BADNUMPRI
OCAO 1889 MAC SYM BAS BASSK_BADRECIDE
OCAO 1890 MAC SYM BAS BASSK_BADRECVAL
OCAO 1891 MAC SYM BAS BASSK_CANCHAARR
OCAO 1892 MAC SYM BAS BASSK_CANCOMSTA
OCAO 1893 MAC SYM BAS BASSK_CANCON
OCAO 1894 MAC SYM BAS BASSK_CANFINFIL
OCAO 1895 MAC SYM BAS BASSK_CANINVMAT
OCAO 1896 MAC SYM BAS BASSK_CANOPEFIL
OCAO 1897 MAC SYM BAS BASSK_CANPOSEOF
OCAO 1898 MAC SYM BAS BASSK_CHATO_NON
OCAO 1899 MAC SYM BAS BASSK_CORFI[STR
OCAO 1900 MAC SYM BAS BASSK_DATFORERR
OCAO 1901 MAC SYM BAS BASSK_DATTYPERR
OCAO 1902 MAC SYM BAS BASSK_DEFWITFNE
OCAO 1903 MAC SYM BAS BASSK_DEVHUNWRI
OCAO 1904 MAC SYM BAS BASSK_DEVNOTAVA
OCAO 1905 MAC SYM BAS BASSK_DEVNOTFIL
OCAO 1906 MAC SYM BAS BASSK_DIFUSELON
OCAO 1907 MAC SYM BAS BASSK_DIRERR
OCAO 1908 MAC SYM BAS BASSK_DISBLOINT
OCAO 1909 MAC SYM BAS BASSK_DISERRDUR
OCAO 1910 MAC SYM BAS BASSK_DISPACLOC
OCAO 1911 MAC SYM BAS BASSK_DISPACNEE
OCAO 1912 MAC SYM BAS BASSK_DISPACNOT
OCAO 1913 MAC SYM BAS BASSK_DISPACPRI
OCAO 1914 MAC SYM BAS BASSK_DIVBY_ZER
OCAO 1915 MAC SYM BAS BASSK_DUPKEYDET
OCAO 1916 MAC SYM BAS BASSK_ENDFILDEV
OCAO 1917 MAC SYM BAS BASSK_ERRTRANEE
OCAO 1918 MAC SYM BAS BASSK_ENDOF_STA
OCAO 1919 MAC SYM BAS BASSK_EXEON[FIL
OCAO 1920 MAC SYM BAS BASSK_EXPERR
OCAO 1921 MAC SYM BAS BASSK_EXPTOOCOM
OCAO 1922 MAC SYM BAS BASSK_FATDISPAC
OCAO 1923 MAC SYM BAS BASSK_FATSYSIO
OCAO 1924 MAC SYM BAS BASSK_FIEOVEBUF
OCAO 1925 MAC SYM BAS BASSK_FILACPFAI
OCAO 1926 MAC SYM BAS BASSK_FILATTNOT
OCAO 1927 MAC SYM BAS BASSK_FILEXIREN
OCAO 1928 MAC SYM BAS BASSK_FILEXPDAT
OCAO 1929 MAC SYM BAS BASSK_FILIS_LOC
OCAO 1930 MAC SYM BAS BASSK_FIRARGSEQ
OCAO 1931 MAC SYM BAS BASSK_FLOOVE
OCAO 1932 MAC SYM BAS BASSK_FLOPOIERR
OCAO 1933 MAC SYM BAS BASSK_FLOUND

OCAO 1934	MAC	SYM	BAS	BASSK_FNEWITDEF	00
OCAO 1935	MAC	SYM	BAS	BASSK_FNEWITFUN	00
OCAO 1936	MAC	SYM	BAS	BASSK_FORWITNEX	00
OCAO 1937	MAC	SYM	BAS	BASSK_ILLALLCLA	00
OCAO 1938	MAC	SYM	BAS	BASSK_ILLARGLOG	00
OCAO 1939	MAC	SYM	BAS	BASSK_ILLBYTCOU	00
OCAO 1940	MAC	SYM	BAS	BASSK_ILLCLUSIZ	00
OCAO 1941	MAC	SYM	BAS	BASSK_ILLCONCLA	00
OCAO 1942	MAC	SYM	BAS	BASSK_ILLDEFNES	00
OCAO 1943	MAC	SYM	BAS	BASSK_ILLDUMVAR	00
OCAO 1944	MAC	SYM	BAS	BASSK_ILLEXIDEF	00
OCAO 1945	MAC	SYM	BAS	BASSK_ILLEXP	00
OCAO 1946	MAC	SYM	BAS	BASSK_ILLFIEVAR	00
OCAO 1947	MAC	SYM	BAS	BASSK_ILLFILNAM	00
OCAO 1948	MAC	SYM	BAS	BASSK_ILLFN_RED	00
OCAO 1949	MAC	SYM	BAS	BASSK_ILLFUNNAM	00
OCAO 1950	MAC	SYM	BAS	BASSK_ILLIF_STA	00
OCAO 1951	MAC	SYM	BAS	BASSK_ILLIILACC	00
OCAO 1952	MAC	SYM	BAS	BASSK_ILLIN_IMM	00
OCAO 1953	MAC	SYM	BAS	BASSK_ILLIO_CHA	00
OCAO 1954	MAC	SYM	BAS	BASSK_ILLKEPATT	00
OCAO 1955	MAC	SYM	BAS	BASSK_ILLLINNUM	00
OCAO 1956	MAC	SYM	BAS	BASSK_ILLMAGUSA	00
OCAO 1957	MAC	SYM	BAS	BASSK_ILLMODMIX	00
OCAO 1958	MAC	SYM	BAS	BASSK_ILLNUM	00
OCAO 1959	MAC	SYM	BAS	BASSK_ILLNUMIMA	00
OCAO 1960	MAC	SYM	BAS	BASSK_ILLEOPE	00
OCAO 1961	MAC	SYM	BAS	BASSK_ILLRECACC	00
OCAO 1962	MAC	SYM	BAS	BASSK_ILLRECFILE	00
OCAO 1963	MAC	SYM	BAS	BASSK_ILLRECFOR	00
OCAO 1964	MAC	SYM	BAS	BASSK_ILLRESSUB	00
OCAO 1965	MAC	SYM	BAS	BASSK_ILLRETSUB	00
OCAO 1966	MAC	SYM	BAS	BASSK_ILLSTA	00
OCAO 1967	MAC	SYM	BAS	BASSK_ILLSTRIMA	00
OCAO 1968	MAC	SYM	BAS	BASSK_ILLSWIUSA	00
OCAO 1969	MAC	SYM	BAS	BASSK_ILLSYM	00
OCAO 1970	MAC	SYM	BAS	BASSK_ILLSYSUSA	00
OCAO 1971	MAC	SYM	BAS	BASSK_ILLUSA	00
OCAO 1972	MAC	SYM	BAS	BASSK_ILLUSADEV	00
OCAO 1973	MAC	SYM	BAS	BASSK_ILLVER	00
OCAO 1974	MAC	SYM	BAS	BASSK_IMASQROO	00
OCAO 1975	MAC	SYM	BAS	BASSK_INCFUNUSA	00
OCAO 1976	MAC	SYM	BAS	BASSK_INCSUBUSE	00
OCAO 1977	MAC	SYM	BAS	BASSK_INDNOTFUL	00
OCAO 1978	MAC	SYM	BAS	BASSK_INDNOTINI	00
OCAO 1979	MAC	SYM	BAS	BASSK_INTERR	00
OCAO 1980	MAC	SYM	BAS	BASSK_INTOVEFOR	00
OCAO 1981	MAC	SYM	BAS	BASSK_INVFILOPT	00
OCAO 1982	MAC	SYM	BAS	BASSK_INVKYREF	00
OCAO 1983	MAC	SYM	BAS	BASSK_INVRFAFIE	00
OCAO 1984	MAC	SYM	BAS	BASSK_IO_CHAALR	00
OCAO 1985	MAC	SYM	BAS	BASSK_IO_CHANOT	00
OCAO 1986	MAC	SYM	BAS	BASSK_IO_TO_DET	00
OCAO 1987	MAC	SYM	BAS	BASSK_KEYFIEBEY	00
OCAO 1988	MAC	SYM	BAS	BASSK_KEYLARTHA	00
OCAO 1989	MAC	SYM	BAS	BASSK_KEYNOTCHA	00
OCAO 1990	MAC	SYM	BAS	BASSK_KEYSIZTOO	00

OCAO 1991	MAC	SYM	BAS	BASSK_KEYWAIEXH
OCAO 1992	MAC	SYM	BAS	BASSK_LINTOOLON
OCAO 1993	MAC	SYM	BAS	BASSK_LITSTRNEE
OCAO 1994	MAC	SYM	BAS	BASSK_MAGRECLEN
OCAO 1995	MAC	SYM	BAS	BASSK_MAGSELERR
OCAO 1996	MAC	SYM	BAS	BASSK_MATARRTOO
OCAO 1997	MAC	SYM	BAS	BASSK_MATARRWIT
OCAO 1998	MAC	SYM	BAS	BASSK_MATDIMERR
OCAO 1999	MAC	SYM	BAS	BASSK_MAXMEMEXC
OCAO 2000	MAC	SYM	BAS	BASSK_MEMMANVIO
OCAO 2001	MAC	SYM	BAS	BASSK_MEMPARFAI
OCAO 2002	MAC	SYM	BAS	BASSK_MISSPEFEA
OCAO 2003	MAC	SYM	BAS	BASSK_MODERR
OCAO 2004	MAC	SYM	BAS	BASSK_MOVOVEBUF
OCAO 2005	MAC	SYM	BAS	BASSK_NAMACCNOW
OCAO 2006	MAC	SYM	BAS	BASSK_NEGFILSTR
OCAO 2007	MAC	SYM	BAS	BASSK_NEXWITFOR
OCAO 2008	MAC	SYM	BAS	BASSK_NODNAMERR
OCAO 2009	MAC	SYM	BAS	BASSK_NONRESRUN
OCAO 2010	MAC	SYM	BAS	BASSK_NOTENDFIL
OCAO 2011	MAC	SYM	BAS	BASSK_NOTEENOAVA
OCAO 2012	MAC	SYM	BAS	BASSK_NOTENODAT
OCAO 2013	MAC	SYM	BAS	BASSK_NOTIMP
OCAO 2014	MAC	SYM	BAS	BASSK_NOTTRANACC
OCAO 2015	MAC	SYM	BAS	BASSK_NOTVALDEV
OCAO 2016	MAC	SYM	BAS	BASSK_NO_BUFSPA
OCAO 2017	MAC	SYM	BAS	BASSK_NO_CURREC
OCAO 2018	MAC	SYM	BAS	BASSK_NO_FIEIMA
OCAO 2019	MAC	SYM	BAS	BASSK_NO_FILNAM
OCAO 2020	MAC	SYM	BAS	BASSK_NO_PRIKEY
OCAO 2021	MAC	SYM	BAS	BASSK_NO_ROOUSE
OCAO 2022	MAC	SYM	BAS	BASSK_NO_RUNSYS
OCAO 2023	MAC	SYM	BAS	BASSK_NUIMA
OCAO 2024	MAC	SYM	BAS	BASSK_NUMIMASTR
OCAO 2025	MAC	SYM	BAS	BASSK_NUMIS_NEE
OCAO 2026	MAC	SYM	BAS	BASSK_ODDADDTTRA
OCAO 2027	MAC	SYM	BAS	BASSK_ONEOR TWO
OCAO 2028	MAC	SYM	BAS	BASSK_ON_STANEE
OCAO 2029	MAC	SYM	BAS	BASSK_ON_STAOUT
OCAO 2030	MAC	SYM	BAS	BASSK_OUTOF DAT
OCAO 2031	MAC	SYM	BAS	BASSK_PACIDSDON
OCAO 2032	MAC	SYM	BAS	BASSK_PLEUSERUN
OCAO 2033	MAC	SYM	BAS	BASSK_PRIKEYOUT
OCAO 2034	MAC	SYM	BAS	BASSK_PRIUSIBUF
OCAO 2035	MAC	SYM	BAS	BASSK_PRIUSIFOR
OCAO 2036	MAC	SYM	BAS	BASSK_PROC TRA
OCAO 2037	MAC	SYM	BAS	BASSK_PROLOSSOR
OCAO 2038	MAC	SYM	BAS	BASSK_PROVIO
OCAO 2039	MAC	SYM	BAS	BASSK_RECALREXI
OCAO 2040	MAC	SYM	BAS	BASSK_RECATTNOT
OCAO 2041	MAC	SYM	BAS	BASSK_RECBUCLOC
OCAO 2042	MAC	SYM	BAS	BASSK_RECFILEOO
OCAO 2043	MAC	SYM	BAS	BASSK_RECHASBEE
OCAO 2044	MAC	SYM	BAS	BASSK_RECLOCFAI
OCAO 2045	MAC	SYM	BAS	BASSK_RECNOTFOU
OCAO 2046	MAC	SYM	BAS	BASSK_RECNUMEXC
OCAO 2047	MAC	SYM	BAS	BASSK_RECSUBCAL

OCAO 2048		MAC	SYM	BAS	BASSK_REDARR
OCAO 2049		MAC	SYM	BAS	BASSK_RESINTRA
OCAO 2050		MAC	SYM	BAS	BASSK_RESNO_ERR
OCAO 2051		MAC	SYM	BAS	BASSK_RETWITGOS
OCAO 2052		MAC	SYM	BAS	BASSK_RRVNOTFUL
OCAO 2053		MAC	SYM	BAS	BASSK_SCAFACINT
OCAO 2054		MAC	SYM	BAS	BASSK_SIZRECINV
OCAO 2055		MAC	SYM	BAS	BASSK_SP_STAOVE
OCAO 2056		MAC	SYM	BAS	BASSK_STANOTFOU
OCAO 2057		MAC	SYM	BAS	BASSK_STO
OCAO 2058		MAC	SYM	BAS	BASSK_STRIMANUM
OCAO 2059		MAC	SYM	BAS	BASSK_STRIS_NEE
OCAO 2060		MAC	SYM	BAS	BASSK_STRTOOLON
OCAO 2061		MAC	SYM	BAS	BASSK_SUBOUTRAN
OCAO 2062		MAC	SYM	BAS	BASSK_SYNERR
OCAO 2063		MAC	SYM	BAS	BASSK_TAPBOTDET
OCAO 2064		MAC	SYM	BAS	BASSK_TAPNOTANS
OCAO 2065		MAC	SYM	BAS	BASSK_TAPRECNOT
OCAO 2066		MAC	SYM	BAS	BASSK_TERFORFIL
OCAO 2067		MAC	SYM	BAS	BASSK_TIMLIMEXC
OCAO 2068		MAC	SYM	BAS	BASSK_TOOFEWARG
OCAO 2069		MAC	SYM	BAS	BASSK_TOOMANARG
OCAO 2070		MAC	SYM	BAS	BASSK_TOOMANOPE
OCAO 2071		MAC	SYM	BAS	BASSK_UNDFUNCAL
OCAO 2072		MAC	SYM	BAS	BASSK_USEDATERR
OCAO 2073		MAC	SYM	BAS	BASSK_VIRARRDIS
OCAO 2074		MAC	SYM	BAS	BASSK_VIRARROPE
OCAO 2075		MAC	SYM	BAS	BASSK_VIRBUFTOO
OCAO 2076		MAC	SYM	BAS	BASSK_WHA
OCAO 2077		MAC	SYM	BAS	BASSK_WROMATPAC
OCAO 2078	:				
OCAO 2079	:	New messages for Basic 2.0, VMS 3.1			
OCAO 2080	:				
OCAO 2081		MAC	SYM	BAS	BASSK_NEGZERTAB
OCAO 2082		MAC	SYM	BAS	BASSK_TOOMUCDAT
OCAO 2083		MAC	SYM	BAS	BASSK_ERRFILCOR
OCAO 2084		MAC	SYM	BAS	BASSK_UNEFILDAT
OCAO 2085		MAC	SYM	BAS	BASSK_NOSUPFOR
OCAO 2086		MAC	SYM	BAS	BASSK_DECERR
OCAO 2087		MAC	SYM	BAS	BASSK_NETOPEREJ
OCAO 2088		MAC	SYM	BAS	BASSK_REMOVEBUF
OCAO 2089		MAC	SYM	BAS	BASSK_UNAREMVAR
OCAO 2090		MAC	SYM	BAS	BASSK_RECOCMAP
OCAO 2091		MAC	SYM	BAS	BASSK_IMPERRHAN
OCAO 2092		MAC	SYM	BAS	BASSK_ILLRECLOC
OCAO 2093		MAC	SYM	BAS	BASSK_REQRECSIZ
OCAO 2094		MAC	SYM	BAS	BASSK_TOOLITDAT
OCAO 2095					
OCAO 2096					
OCAO 2097	:	Now the 32-bit values.			
OCAO 2098	:				
OCAO 2099		MAC	SYM	BAS	BASS_ACCDEVUSE
OCAO 2100		MAC	SYM	BAS	BASS_ARGDONMAT
OCAO 2101		MAC	SYM	BAS	BASS_ARGOUTBOU
OCAO 2102		MAC	SYM	BAS	BASS_ARGLOOLAR
OCAO 2103		MAC	SYM	BAS	BASS_ARRMUSSAM
OCAO 2104		MAC	SYM	BAS	BASS_ARRMUSSQU

OCAO 2105	MAC	SYM	BAS	BASS-BADDIRDEV
OCAO 2106	MAC	SYM	BAS	BASS-BADLINNUM
OCAO 2107	MAC	SYM	BAS	BASS-BADNUMPRI
OCAO 2108	MAC	SYM	BAS	BASS-BADRECID
OCAO 2109	MAC	SYM	BAS	BASS-BADRECVAL
OCAO 2110	MAC	SYM	BAS	BASS-CANCHAARR
OCAO 2111	MAC	SYM	BAS	BASS-CANCOMSTA
OCAO 2112	MAC	SYM	BAS	BASS-CANCON
OCAO 2113	MAC	SYM	BAS	BASS-CANFINFIL
OCAO 2114	MAC	SYM	BAS	BASS-CANINVMAT
OCAO 2115	MAC	SYM	BAS	BASS-CANOPEFIL
OCAO 2116	MAC	SYM	BAS	BASS-CANPOSEOF
OCAO 2117	MAC	SYM	BAS	BASS-CHATO NON
OCAO 2118	MAC	SYM	BAS	BASS-CORFI STR
OCAO 2119	MAC	SYM	BAS	BASS-DATFORERR
OCAO 2120	MAC	SYM	BAS	BASS-DATTYPERR
OCAO 2121	MAC	SYM	BAS	BASS-DEFWITFNE
OCAO 2122	MAC	SYM	BAS	BASS-DEVHUNWRI
OCAO 2123	MAC	SYM	BAS	BASS-DEVNOTAVA
OCAO 2124	MAC	SYM	BAS	BASS-DEVNOTFIL
OCAO 2125	MAC	SYM	BAS	BASS-DIFUSELON
OCAO 2126	MAC	SYM	BAS	BASS-DIRERR
OCAO 2127	MAC	SYM	BAS	BASS-DISBLOINT
OCAO 2128	MAC	SYM	BAS	BASS-DISERRDUR
OCAO 2129	MAC	SYM	BAS	BASS-DISPACLOC
OCAO 2130	MAC	SYM	BAS	BASS-DISPACNEE
OCAO 2131	MAC	SYM	BAS	BASS-DISPACNOT
OCAO 2132	MAC	SYM	BAS	BASS-DISPACPRI
OCAO 2133	MAC	SYM	BAS	BASS-DIVBY ZER
OCAO 2134	MAC	SYM	BAS	BASS-DUPKE DET
OCAO 2135	MAC	SYM	BAS	BASS-ENDFILDEV
OCAO 2136	MAC	SYM	BAS	BASS-ENDOF STA
OCAO 2137	MAC	SYM	BAS	BASS-ERRTRANEE
OCAO 2138	MAC	SYM	BAS	BASS-EXEONLFIL
OCAO 2139	MAC	SYM	BAS	BASS-EXPERR
OCAO 2140	MAC	SYM	BAS	BASS-EXPTOOCOM
OCAO 2141	MAC	SYM	BAS	BASS-FATDISPAC
OCAO 2142	MAC	SYM	BAS	BASS-FATSYSIO
OCAO 2143	MAC	SYM	BAS	BASS-FIEOVEBUF
OCAO 2144	MAC	SYM	BAS	BASS-FILACPFAI
OCAO 2145	MAC	SYM	BAS	BASS-FILATTNOT
OCAO 2146	MAC	SYM	BAS	BASS-FILEXIREN
OCAO 2147	MAC	SYM	BAS	BASS-FILEXPDAT
OCAO 2148	MAC	SYM	BAS	BASS-FILIS LOC
OCAO 2149	MAC	SYM	BAS	BASS-FIRARGSEQ
OCAO 2150	MAC	SYM	BAS	BASS-FLOOVE
OCAO 2151	MAC	SYM	BAS	BASS-FLOPOIERR
OCAO 2152	MAC	SYM	BAS	BASS-FLOUD
OCAO 2153	MAC	SYM	BAS	BASS-FNEWITDEF
OCAO 2154	MAC	SYM	BAS	BASS-FNEWITFUN
OCAO 2155	MAC	SYM	BAS	BASS-FORWITNEX
OCAO 2156	MAC	SYM	BAS	BASS-ILLALLCLA
OCAO 2157	MAC	SYM	BAS	BASS-ILLARGLOG
OCAO 2158	MAC	SYM	BAS	BASS-ILLBYTCOU
OCAO 2159	MAC	SYM	BAS	BASS-ILLCLUSIZ
OCAO 2160	MAC	SYM	BAS	BASS-ILLCONCLA
OCAO 2161	MAC	SYM	BAS	BASS-ILLDEFNES

OCAO 2162	MAC	SYM	BAS	BASS-ILLDUMVAR
OCAO 2163	MAC	SYM	BAS	BASS-ILLEXIDEF
OCAO 2164	MAC	SYM	BAS	BASS-ILLEXP
OCAO 2165	MAC	SYM	BAS	BASS-ILLFIEVAR
OCAO 2166	MAC	SYM	BAS	BASS-ILLFILNAM
OCAO 2167	MAC	SYM	BAS	BASS-ILLFN RED
OCAO 2168	MAC	SYM	BAS	BASS-ILLFUNNAM
OCAO 2169	MAC	SYM	BAS	BASS-ILLIF STA
OCAO 2170	MAC	SYM	BAS	BASS-ILLIICACC
OCAO 2171	MAC	SYM	BAS	BASS-ILLIN IMM
OCAO 2172	MAC	SYM	BAS	BASS-ILLIO-CHA
OCAO 2173	MAC	SYM	BAS	BASS-ILLKEPATT
OCAO 2174	MAC	SYM	BAS	BASS-ILLLINNUM
OCAO 2175	MAC	SYM	BAS	BASS-ILLMAGUSA
OCAO 2176	MAC	SYM	BAS	BASS-ILLMODMIX
OCAO 2177	MAC	SYM	BAS	BASS-ILLNUM
OCAO 2178	MAC	SYM	BAS	BASS-ILLNUMIMA
OCAO 2179	MAC	SYM	BAS	BASS-ILLOPE
OCAO 2180	MAC	SYM	BAS	BASS-ILLRECACC
OCAO 2181	MAC	SYM	BAS	BASS-ILLRECFIL
OCAO 2182	MAC	SYM	BAS	BASS-ILLRECFOR
OCAO 2183	MAC	SYM	BAS	BASS-ILLRESSUB
OCAO 2184	MAC	SYM	BAS	BASS-ILLRETSUB
OCAO 2185	MAC	SYM	BAS	BASS-ILLSTA
OCAO 2186	MAC	SYM	BAS	BASS-ILLSTRIMA
OCAO 2187	MAC	SYM	BAS	BASS-ILLSWIUSA
OCAO 2188	MAC	SYM	BAS	BASS-ILLSYM
OCAO 2189	MAC	SYM	BAS	BASS-ILLSYSUSA
OCAO 2190	MAC	SYM	BAS	BASS-ILLUSA
OCAO 2191	MAC	SYM	BAS	BASS-ILLUSADEV
OCAO 2192	MAC	SYM	BAS	BASS-ILLVER
OCAO 2193	MAC	SYM	BAS	BASS-IMASQUR00
OCAO 2194	MAC	SYM	BAS	BASS-INCFUNUSA
OCAO 2195	MAC	SYM	BAS	BASS-INCSUBUSE
OCAO 2196	MAC	SYM	BAS	BASS-INDNOTFUL
OCAO 2197	MAC	SYM	BAS	BASS-INDNOTINI
OCAO 2198	MAC	SYM	BAS	BASS-INTERR
OCAO 2199	MAC	SYM	BAS	BASS-INTOVEFOR
OCAO 2200	MAC	SYM	BAS	BASS-INVFILOPT
OCAO 2201	MAC	SYM	BAS	BASS-INVKEYREF
OCAO 2202	MAC	SYM	BAS	BASS-INVRFAFIE
OCAO 2203	MAC	SYM	BAS	BASS-IO-CHAALR
OCAO 2204	MAC	SYM	BAS	BASS-IO-CHANOT
OCAO 2205	MAC	SYM	BAS	BASS-IO-TO DET
OCAO 2206	MAC	SYM	BAS	BASS-KEYFIEBEY
OCAO 2207	MAC	SYM	BAS	BASS-KEYLARTHA
OCAO 2208	MAC	SYM	IAS	BASS-KEYNOTCHA
OCAO 2209	MAC	SYM	BAS	BASS-KEYSIZTOO
OCAO 2210	MAC	SYM	BAS	BASS-KEYWAIEXH
OCAO 2211	MAC	SYM	BAS	BASS-LINTOOLON
OCAO 2212	MAC	SYM	BAS	BASS-LITSTRNEE
OCAO 2213	MAC	SYM	BAS	BASS-MAGRECLEN
OCAO 2214	MAC	SYM	BAS	BASS-MAGSELERR
OCAO 2215	MAC	SYM	BAS	BASS-MATARRTOO
OCAO 2216	MAC	SYM	BAS	BASS-MATARRWIT
OCAO 2217	MAC	SYM	BAS	BASS-MATDIMERR
OCAO 2218	MAC	SYM	BAS	BASS-MAXMEMEXC

OCAO 2219	MAC	SYM	BAS	BASS-MEMMANVIO
OCAO 2220	MAC	SYM	BAS	BASS-MEMPARFAI
OCAO 2221	MAC	SYM	BAS	BASS-MISSPEFEA
OCAO 2222	MAC	SYM	BAS	BASS-MODERR
OCAO 2223	MAC	SYM	BAS	BASS-MOVOVEBUF
OCAO 2224	MAC	SYM	BAS	BASS-NAMACCNOW
OCAO 2225	MAC	SYM	BAS	BASS-NEGFILESTR
OCAO 2226	MAC	SYM	BAS	BASS-NEXWITFOR
OCAO 2227	MAC	SYM	BAS	BASS-NODNAMERR
OCAO 2228	MAC	SYM	BAS	BASS-NONRESRUN
OCAO 2229	MAC	SYM	BAS	BASS-NOTENDFIL
OCAO 2230	MAC	SYM	BAS	BASS-NOTENOAVA
OCAO 2231	MAC	SYM	BAS	BASS-NOTENODAT
OCAO 2232	MAC	SYM	BAS	BASS-NOTIMP
OCAO 2233	MAC	SYM	BAS	BASS-NOTRANACC
OCAO 2234	MAC	SYM	BAS	BASS-NOTVALDEV
OCAO 2235	MAC	SYM	BAS	BASS-NO-BUFSPA
OCAO 2236	MAC	SYM	BAS	BASS-NO-CURREC
OCAO 2237	MAC	SYM	BAS	BASS-NO-FIEIMA
OCAO 2238	MAC	SYM	BAS	BASS-NO-FILNAM
OCAO 2239	MAC	SYM	BAS	BASS-NO-PRIKEY
OCAO 2240	MAC	SYM	BAS	BASS-NO-ROOUSE
OCAO 2241	MAC	SYM	BAS	BASS-NO-RUNSYS
OCAO 2242	MAC	SYM	BAS	BASS-NUIMA
OCAO 2243	MAC	SYM	BAS	BASS-NUMIMASTR
OCAO 2244	MAC	SYM	BAS	BASS-NUMIS_NEE
OCAO 2245	MAC	SYM	BAS	BASS-ODDADDTRA
OCAO 2246	MAC	SYM	BAS	BASS-ONEOR TWO
OCAO 2247	MAC	SYM	BAS	BASS-ON-STANEE
OCAO 2248	MAC	SYM	BAS	BASS-ON-STAYOUT
OCAO 2249	MAC	SYM	BAS	BASS-OUTOF DAT
OCAO 2250	MAC	SYM	BAS	BASS-PACIDS ^D ON
OCAO 2251	MAC	SYM	BAS	BASS-PLEUSERUN
OCAO 2252	MAC	SYM	BAS	BASS-PRIKEYOUT
OCAO 2253	MAC	SYM	BAS	BASS-PRIUSIBUF
OCAO 2254	MAC	SYM	BAS	BASS-PRIUSIFOR
OCAO 2255	MAC	SYM	BAS	BASS-PROC TRA
OCAO 2256	MAC	SYM	BAS	BASS-PROLOSSOR
OCAO 2257	MAC	SYM	BAS	BASS-PROVIO
OCAO 2258	MAC	SYM	BAS	BASS-RECALREXI
OCAO 2259	MAC	SYM	BAS	BASS-RECATTNOT
OCAO 2260	MAC	SYM	BAS	BASS-RECBUCLOC
OCAO 2261	MAC	SYM	BAS	BASS-RECFILTOO
OCAO 2262	MAC	SYM	BAS	BASS-RECHASBEE
OCAO 2263	MAC	SYM	BAS	BASS-RECLOCFAI
OCAO 2264	MAC	SYM	BAS	BASS-RECNOTFOU
OCAO 2265	MAC	SYM	BAS	BASS-RECNUMEXC
OCAO 2266	MAC	SYM	BAS	BASS-RECSUBCAL
OCAO 2267	MAC	SYM	BAS	BASS-REDARR
OCAO 2268	MAC	SYM	BAS	BASS-RESINSTRA
OCAO 2269	MAC	SYM	BAS	BASS-RESNO ERR
OCAO 2270	MAC	SYM	BAS	BASS-RETWITGOS
OCAO 2271	MAC	SYM	BAS	BASS-RRVNOTFUL
OCAO 2272	MAC	SYM	BAS	BASS-SCAFACINT
OCAO 2273	MAC	SYM	BAS	BASS-SIZRECINV
OCAO 2274	MAC	SYM	BAS	BASS-SP STAOVE
OCAO 2275	MAC	SYM	BAS	BASS-STANOTFOU

OCAO 2276	MAC	SYM	BAS	BASS_STO
OCAO 2277	MAC	SYM	BAS	BASS_STRIMANUM
OCAO 2278	MAC	SYM	BAS	BASS_STRIS_NEE
OCAO 2279	MAC	SYM	BAS	BASS_STROUTLON
OCAO 2280	MAC	SYM	BAS	BASS_SUBOUTRAN
OCAO 2281	MAC	SYM	BAS	BASS_SYNERR
OCAO 2282	MAC	SYM	BAS	BASS_TAPBOTDET
OCAO 2283	MAC	SYM	BAS	BASS_TAPNOTANS
OCAO 2284	MAC	SYM	BAS	BASS_TAPRECNOT
OCAO 2285	MAC	SYM	BAS	BASS_TERFORFIL
OCAO 2286	MAC	SYM	BAS	BASS_TIMLIMEXC
OCAO 2287	MAC	SYM	BAS	BASS_TOFFEWARG
OCAO 2288	MAC	SYM	BAS	BASS_TOOMANARG
OCAO 2289	MAC	SYM	BAS	BASS_TOOMANOPE
OCAO 2290	MAC	SYM	BAS	BASS_UNDFUNCAL
OCAO 2291	MAC	SYM	BAS	BASS_USEDATERR
OCAO 2292	MAC	SYM	BAS	BASS_VIRARRDIS
OCAO 2293	MAC	SYM	BAS	BASS_VIRARROPE
OCAO 2294	MAC	SYM	BAS	BASS_VIRBUFTOO
OCAO 2295	MAC	SYM	BAS	BASS_WHA
OCAO 2296	MAC	SYM	BAS	BASS_WROMATPAC
OCAO 2297				
OCAO 2298	: New messages for Basic 2.0, VMS 3.1			
OCAO 2299	MAC	SYM	BAS	BASS_NEGZERTAB
OCAO 2300	MAC	SYM	BAS	BASS_TOOMUCDAT
OCAO 2301	MAC	SYM	BAS	BASS_ERRFILCOR
OCAO 2302	MAC	SYM	BAS	BASS_UNEFILDAT
OCAO 2303	MAC	SYM	BAS	BASS_NOSUPFOR
OCAO 2304	MAC	SYM	BAS	BASS_DECERR
OCAO 2305	MAC	SYM	BAS	BASS_NETOPEREJ
OCAO 2306	MAC	SYM	BAS	BASS_REMOVEBUF
OCAO 2307	MAC	SYM	BAS	BASS_UNAREMVAR
OCAO 2308	MAC	SYM	BAS	BASS_RECOCMAP
OCAO 2309	MAC	SYM	BAS	BASS_IMPERRHAN
OCAO 2310	MAC	SYM	BAS	BASS_ILLRECLOC
OCAO 2311	MAC	SYM	BAS	BASS_REQRECSIZ
OCAO 2312	MAC	SYM	BAS	BASS_TOOLITDAT
OCAO 2313				
OCAO 2314	: Module BASS\$REC PROC			
OCAO 2315	MAC	CALL	BAS	BASSWAIT

OE00 2330 : MODULE LIB\$AB_CVTPT_O
OE00 2331 MAC SYM LIB LIB\$AB_CVTPT_O
OE00 2332 :
OE00 2333 : MODULE LIB\$AB_CVTPT_U
OE00 2334 MAC SYM LIB LIB\$AB_CVTPT_U
OE00 2335 :
OE00 2336 : MODULE LIB\$AB_CVTTP_O
OE00 2337 MAC SYM LIB LIB\$AB_CVTTP_O
OE00 2338 :
OE00 2339 : MODULE LIB\$AB_CVTTP_U
OE00 2340 MAC SYM LIB LIB\$AB_CVTTP_U
OE00 2341 :
OE00 2342 : MODULE COB\$AB_SPANC
OE00 2343 MAC SYM COB COB\$AB_SPANC
OE00 2344 :
OE00 2345 : MODULE LIB\$AB_CVT_U_O
OE00 2346 MAC SYM LIB LIB\$AB_CVT_U_O
OE00 2347 :
OE00 2348 :+
OE00 2349 : Degree equivalents of trig functions
OE00 2350 :-
OE00 2351 :
OE00 2352 : MODULE:MTH\$ACOS
OE00 2353 MAC CALL MTH MTH\$ACOSD
OE08 2354 MAC JSB MTH MTH\$ACOSD_R4
OE10 2355 :
OE10 2356 : MODULE:MTH\$ASIN
OE10 2357 MAC CALL MTH MTH\$ASIND
OE18 2358 MAC JSB MTH MTH\$ASIND_R4
OE20 2359 :
OE20 2360 : MODULE:MTH\$ATAN
OE20 2361 MAC CALL MTH MTH\$ATAND
OE28 2362 MAC CALL MTH MTH\$ATAND2
OE30 2363 MAC JSB MTH MTH\$ATAND_R4
OE38 2364 :
OE38 2365 : MODULE:MTH\$DACOS
OE38 2366 MAC CALL MTH MTH\$DACOSD
OE40 2367 MAC JSB MTH MTH\$DACOSD_R7
OE48 2368 :
OE48 2369 : MODULE:MTH\$DASIN
OE48 2370 MAC CALL MTH MTH\$DASIND
OE50 2371 MAC JSB MTH MTH\$DASIND_R7
OE58 2372 :
OE58 2373 : MODULE:MTH\$DATAN
OE58 2374 MAC CALL MTH MTH\$DATAND
OE60 2375 MAC CALL MTH MTH\$DATAND2
OE68 2376 MAC JSB MTH MTH\$DATAND_R7
OE70 2377 :
OE70 2378 : MODULE:MTH\$DSINCOS
OE70 2379 MAC CALL MTH MTH\$DCOSD
OE78 2380 MAC JSB MTH MTH\$DCOSD_R7
OE80 2381 MAC CALL MTH MTH\$DSIND
OE88 2382 MAC JSB MTH MTH\$DSIND_R7
OE90 2383 :
OE90 2384 : MODULE:MTH\$SINCOS
OE90 2385 MAC CALL MTH MTH\$COSD
OE98 2386 MAC JSB MTH MTH\$COSD_R4

OEA0	2387	MAC	CALL	MTH	MTH\$SIND
OEA8	2388	MAC	JSB	MTH	MTH\$SIND_R4
OEB0	2389				
OEB0	2390	; MODULE: MTH\$DTAN			
OEB0	2391	MAC	CALL	MTH	MTH\$DTAND
OEB8	2392	MAC	JSB	MTH	MTH\$DTAND_R7
OEC0	2393				
OEC0	2394	; MODULE: MTH\$TAN			
OEC0	2395	MAC	CALL	MTH	MTH\$TAND
OEC8	2396	MAC	JSB	MTH	MTH\$TAND_R4
OED0	2397				
OED0	2398	; MODULE: MTH\$GACOS			
OED0	2399	MAC	NOVECT	MTH	MTH\$GACOSD
OED0	2400	MAC	NOVECT	MTH	MTH\$GACOSD_R7
OED0	2401				
OED0	2402	; MODULE: MTH\$GASIN			
OED0	2403	MAC	NOVECT	MTH	MTH\$GASIND
OED0	2404	MAC	NOVECT	MTH	MTH\$GASIND_R7
OED0	2405				
OED0	2406	; MODULE: MTH\$GSINCOS			
OED0	2407	MAC	NOVECT	MTH	MTH\$GSIND
OED0	2408	MAC	NOVECT	MTH	MTH\$GCOSD
OED0	2409	MAC	NOVECT	MTH	MTH\$GSIND_R7
OED0	2410	MAC	NOVECT	MTH	MTH\$GCOSD_R7
OED0	2411				
OED0	2412	; MODULE: MTH\$GTAN			
OED0	2413	MAC	NOVECT	MTH	MTH\$GTAND
OED0	2414	MAC	NOVECT	MTH	MTH\$GTAND_R7
OED0	2415				
OED0	2416	; MODULE: MTH\$HACOS			
OED0	2417	MAC	NOVECT	MTH	MTH\$HACOSD
OED0	2418	MAC	NOVECT	MTH	MTH\$HACOSD_R8
OED0	2419				
OED0	2420	; MODULE: MTH\$HASIN			
OED0	2421	MAC	NOVECT	MTH	MTH\$HASIND
OED0	2422	MAC	NOVECT	MTH	MTH\$HASIND_R8
OED0	2423				
OED0	2424	; MODULE: MTH\$HATANH			
OED0	2425	MAC	NOVECT	MTH	MTH\$HATANH
OED0	2426				
OED0	2427	; MODULE: MTH\$HSINCOS			
OED0	2428	MAC	NOVECT	MTH	MTH\$HSIND
OED0	2429	MAC	NOVECT	MTH	MTH\$HSIND_R5
OED0	2430	MAC	NOVECT	MTH	MTH\$HCOSD
OED0	2431	MAC	NOVECT	MTH	MTH\$HCOSD_R5
OED0	2432				
OED0	2433	; MODULE: MTH\$HTAN			
OED0	2434	MAC	NOVECT	MTH	MTH\$HTAND
OED0	2435	MAC	NOVECT	MTH	MTH\$HTAND_R5
OED0	2436				
OEDC	2437	; V E R S I O N 3 . 0 A D D I T I O N S			
OED0	2438	; FILL UP THE HOLE created by removing some translation tables that ended up			
OED0	2439	; in the vector.			
OED0	2440				
OED0	2441	; MODULE: MTH\$ATANH			
OED0	2442	MAC	CALL	MTH	MTH\$ATANH
OED0	2443				

OED8 2444
OED8 2445 : MODULE:MTH\$DATANH
OED8 2446 MAC CALL MTH MTH\$DATANH
OEE0 2447
OEE0 2448 : MODULE MTH\$GATAN
OEE0 2449 MAC NOVECT MTH MTH\$GATAN
OEE0 2450 MAC NOVECT MTH MTH\$GATAN2
OEE0 2451 MAC NOVECT MTH MTH\$GATAN_R7
OEE0 2452 MAC NOVECT MTH MTH\$GATAND
OEE0 2453 MAC NOVECT MTH MTH\$GATAND2
OEE0 2454 MAC NOVECT MTH MTH\$GATAND_R7
OEE0 2455
OEE0 2456 : MODULE MTH\$GLOG
OEE0 2457 MAC NOVECT MTH MTH\$GLOG
OEE0 2458 MAC NOVECT MTH MTH\$GLOG2
OEE0 2459 MAC NOVECT MTH MTH\$GLOG10
OEE0 2460 MAC NOVECT MTH MTH\$GLOG_R8
OEE0 2461 MAC NOVECT MTH MTH\$GLOGT0_R8
OEE0 2462
OEE0 2463 : MODULE MTH\$HATAN
OEE0 2464 MAC NOVECT MTH MTH\$HATAN
OEE0 2465 MAC NOVECT MTH MTH\$HATAN_R8
OEE0 2466 MAC NOVECT MTH MTH\$HATAN2
OEE0 2467 MAC NOVECT MTH MTH\$HATAND
OEE0 2468 MAC NOVECT MTH MTH\$HATAND_R8
OEE0 2469 MAC NOVECT MTH MTH\$HATAND2
OEE0 2470
OEE0 2471 : MODULE MTH\$HLOG
OEE0 2472 MAC NOVECT MTH MTH\$HLOG
OEE0 2473 MAC NOVECT MTH MTH\$HLOG2
OEE0 2474 MAC NOVECT MTH MTH\$HLOG10
OEE0 2475 MAC NOVECT MTH MTH\$HLOG_R8
OEE0 2476 MAC NOVECT MTH MTH\$HLOGT0_R8
OEE0 2477
OEE0 2478 : MODULE MTH\$SINCOS (Continued)
OEE0 2479 MAC CALL MTH MTH\$SINCOS
OEE8 2480 MAC JSB MTH MTH\$SINCOS_R5
OEF0 2481 MAC CALL MTH MTH\$SINCOSD
OEF8 2482 MAC JSB MTH MTH\$SINCOSD_R5
OF00 2483
OF00 2484 : MODULE MTH\$DSINCOS (Continued)
OF00 2485 MAC CALL MTH MTH\$DSINCOS
OF08 2486 MAC JSB MTH MTH\$DSINCOS_R7
OF10 2487 MAC CALL MTH MTH\$DSINCOSD
OF18 2488 MAC JSB MTH MTH\$DSINCOSD_R7
OF20 2489
OF20 2490 : MODULE MTH\$GSINCOS (Continued)
OF20 2491 MAC NOVECT MTH MTH\$GSINCOS
OF20 2492 MAC NOVECT MTH MTH\$GSINCOS_R7
OF20 2493 MAC NOVECT MTH MTH\$GSINCOSD
OF20 2494 MAC NOVECT MTH MTH\$GSINCOSD_R7
OF20 2495
OF20 2496 : MODULE MTH\$HSINCOS (Continued)
OF20 2497 MAC NOVECT MTH MTH\$HSINCOS
OF20 2498 MAC NOVECT MTH MTH\$HSINCOS_R7
OF20 2499 MAC NOVECT MTH MTH\$HSINCOSD
OF20 2500 MAC NOVECT MTH MTH\$HSINCOSD_R7

OF20 2501
OF20 2502 : MODULE:MTH\$ALOG (Continued)
OF20 2503 MAC CALL MTH MTH\$ALOG2
OF28 2504
OF28 2505 : MODULE:MTH\$DLOG (Continued)
OF28 2506 MAC CALL MTH MTH\$DLOG2
OF30 2507
OF30 2508 : MODULE MTH\$AL_4_OV_PI
OF30 2509 MAC NOVECT MTH MTH\$AL_4_OV_PI
OF30 2510
OF30 2511 : MODULE MTH\$TAN (Continued)
OF30 2512 MAC JSB MTH MTH\$TAN_R5
OF38 2513 MAC JSB MTH MTH\$TAND_R5
OF40 2514
OF40 2515 : MODULE MTH\$HTAN (Continued)
OF40 2516 MAC NOVECT MTH MTH\$HTAN_R7
OF40 2517 MAC NOVECT MTH MTH\$HTAND_R7
OF40 2518
OF40 2519 : MODULE MTH\$AL_4_OV_PI
OF40 2520 MAC DATA MTH MTH\$AL_4_OV_PI
OF48 2521
OF48 2522 : MODULE MTH\$ALOG
OF48 2523 MAC DATA MTH MTH\$SAB ALOG
OF50 2524
OF50 2525 : MODULE MTH\$ATAN
OF50 2526 MAC DATA MTH MTH\$SAB ATAN

VMS\$VECTOR
4-003

- Define entry vectors for VMSRTL

B 12

16-SEP-1984 02:15:59 VAX/VMS Macro V04-00
6-SEP-1984 11:48:04 [VMSRTL.SRC]VMSVECTOR.MAR;1

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00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 118C
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1198
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11A4
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11B0
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11BC
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11C8
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11D4
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11E0
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11EC
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 11F8
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1204
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1210
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 121C
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1228
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1234
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1240
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 124C
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1258
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1264
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1270
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 127C
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1288
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1294
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12A0
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12AC
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12B8
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12C4
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12D0
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12DC
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12E8
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 12F4
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 1300
00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00'00' 130C
1318 2539
1318 2540

MAC CALL COB COB\$HANDLER COB\$\$HANDLER

VMS
4-0

1320 2542 : MODULE COB\$IOEXCEPTION -- I/O error processing
1320 2543 MAC CALL COB COB\$IOEXCEPTION
1328 2544
1328 2545 : MODULE COB\$ERROR -- Process compiled-code-detected errors
1328 2546 MAC CALL COB COB\$ERROR
1330 2547
1330 2548 : MODULE COB\$INTARI -- Intermediate Data Type Arithmetic
1330 2549 MAC CALL COB COB\$ADDI
1338 2550 MAC CALL COB COB\$SUBI
1340 2551 MAC CALL COB COB\$MULI
1348 2552 MAC CALL COB COB\$DIVI
1350 2553 MAC CALL COB COB\$DIVI_OSE
1358 2554 MAC CALL COB COB\$CMPI
1360 2555
1360 2556 : MODULE COB\$INTER -- Conversions to and from Intermediate Data Type
1360 2557 MAC JSB COB COB\$CVTDI_R7
1368 2558 MAC JSB COB COB\$CVTFI_R7
1370 2559 MAC JSB COB COB\$CVTID_R7
1378 2560 MAC JSB COB COB\$CVTIF_R7
1380 2561 MAC JSB COB COB\$CVTIL_R8
1388 2562 MAC JSB COB COB\$CVTIP_R9
1390 2563 MAC JSB COB COB\$CVTIQ_R8
1398 2564 MAC JSB COB COB\$CVTIW_R8
13A0 2565 MAC JSB COB COB\$CVTLI_R8
13A8 2566 MAC JSB COB COB\$CVTPI_R9
13B0 2567 MAC JSB COB COB\$CVTQI_R8
13B8 2568 MAC JSB COB COB\$CVTRI_R8
13C0 2569 MAC JSB COB COB\$CVTRIP_R9
13C8 2570 MAC JSB COB COB\$CVTRIQ_R8
13D0 2571 MAC JSB COB COB\$CVTRIW_R8
13D8 2572 MAC JSB COB COB\$CVTTI_R8
13E0 2573 MAC JSB COB COB\$CVTWI_R8
13E8 2574
13E8 2575 : MODULE COBSACC_DATE -- Support for ACCEPT DATE
13E8 2576 MAC CALL COB COB\$ACC_DATE
13F0 2577
13F0 2578 : MODULE COBSACC_DAY -- Support for ACCEPT DAY
13F0 2579 MAC CALL COB COB\$ACC_DAY
13F8 2580
13F8 2581 : MODULE COBSACC_DAYWEEK -- ACCEPT DAY OF WEEK
13F8 2582 MAC CALL COB COB\$ACC_DAYWEEK
1400 2583
1400 2584 : MODULE COBSACC_TIME -- Support for ACCEPT TIME
1400 2585 MAC CALL COB COB\$ACC_TIME
1408 2586
1408 2587 : MODULE COBSACCEPT -- Support for ACCEPT
1408 2588 MAC CALL COB COB\$ACCEPT
1410 2589
1410 2590 : MODULE COB\$DISPLAY -- Support for DISPLAY and DISPLAY WITH NO ADVANCING
1410 2591 MAC CALL COB COB\$DISPLAY
1418 2592 MAC CALL COB COB\$DISP_NO_ADV
1420 2593
1420 2594 : MODULE COB\$DIVQ_R8 -- Quadword division
1420 2595 MAC JSB COB COB\$DIVQ_R8
1428 2596
1428 2597 : MODULE COB\$MULQ_R8 -- Quadword multiplication
1428 2598 MAC JSB COB COB\$MULQ_R8

```
1430 2599
1430 2600 ; MODULE COB$PAUSE -- Support for STOP
1430 2601     MAC    CALL    COB    COB$PAUSE
1438 2602
1438 2603 ; MODULE COB$CVTPQ_R9 -- Packed to Quad conversion
1438 2604     MAC    JSB    COB    COB$CVTPQ_R9
1440 2605
1440 2606 ; MODULE COB$CVTQP_R9 -- Quad to Packed conversion
1440 2607     MAC    JSB    COB    COB$CVTQP_R9
1448 2608
1448 2609 ; MODULE COB$CVTRPQ_R9 -- Rounded Packed to Quad conversion
1448 2610
1448 2611     MAC    JSB    COB    COB$CVTRPQ_R9
1450 2612
1450 2613 ; MODULE COB$CVTRQP_R9 -- Rounded Quad to Packed conversion
1450 2614     MAC    JSB    COB    COB$CVTRQP_R9
1458 2615
1458 2616
```

1458 2618 : MODULE COB\$MSGDEF -- Defines COB\$ all conditon codes
 1458 2619 MAC SYM COB COB\$ CALFAI
 1458 2620 MAC SYM COB COB\$ CANFAIL
 1458 2621 MAC SYM COB COB\$ DELINCOPE
 1458 2622 MAC SYM COB COB\$ DELNO R S
 1458 2623 MAC SYM COB COB\$ DELUNOFIL
 1458 2624 MAC SYM COB COB\$ DISMORMAX
 1458 2625 MAC SYM COB COB\$ EOFON ACC
 1458 2626 MAC SYM COB COB\$ ERRDURACC
 1458 2627 MAC SYM COB COB\$ ERRDURDIS
 1458 2628 MAC SYM COB COB\$ ERRDURSOR
 1458 2629 MAC SYM COB COB\$ ERRON FIL
 1458 2630 MAC SYM COB COB\$ EXPDBOVER
 1458 2631 MAC SYM COB COB\$ FAIFREEVM
 1458 2632 MAC SYM COB COB\$ FAIGET EF
 1458 2633 MAC SYM COB COB\$ FAIGET VM
 1458 2634 MAC SYM COB COB\$ FATINTERR
 1458 2635 MAC SYM COB COB\$ FILALRCLO
 1458 2636 MAC SYM COB COB\$ FILALRLOC
 1458 2637 MAC SYM COB COB\$ FILALROPE
 1458 2638 MAC SYM COB COB\$ FILCLOLOC
 1458 2639 MAC SYM COB COB\$ FILNOTFOU
 1458 2640 MAC SYM COB COB\$ GOTO ALT
 1458 2641 MAC SYM COB COB\$ INTDIVZER
 1458 2642 MAC SYM COB COB\$ INTEXPOVE
 1458 2643 MAC SYM COB COB\$ INTEXPUND
 1458 2644 MAC SYM COB COB\$ INTRESOPE
 1458 2645 MAC SYM COB COB\$ INVARG
 1458 2646 MAC SYM COB COB\$ INVCHANAM
 1458 2647 MAC SYM COB COB\$ INVDECDIG
 1458 2648 MAC SYM COB COB\$ INVINVAL
 1458 2649 MAC SYM COB COB\$ KEYNOTMAT
 1458 2650 MAC SYM COB COB\$ LSTHNDLDB
 1458 2651 MAC SYM COB COB\$ LSTHNDUSE
 1458 2652 MAC SYM COB COB\$ NAMNOTLIN
 1458 2653 MAC SYM COB COB\$ NESERRPER
 1458 2654 MAC SYM COB COB\$ NORMAL
 1458 2655 MAC SYM COB COB\$ NO_NEXLOG
 1458 2656 MAC SYM COB COB\$ NO_NEXVAL
 1458 2657 MAC SYM COB COB\$ NO_SPACE
 1458 2658 MAC SYM COB COB\$ NO_USEPRO
 1458 2659 MAC SYM COB COB\$ OCDEPOVE
 1458 2660 MAC SYM COB COB\$ OPTMISCLO
 1458 2661 MAC SYM COB COB\$ OPTMISOPE
 1458 2662 MAC SYM COB COB\$ OPTMISREA
 1458 2663 MAC SYM COB COB\$ OPTMISSSTA
 1458 2664 MAC SYM COB COB\$ ORGNOTMAT
 1458 2665 MAC SYM COB COB\$ PRIKEYCHA
 1458 2666 MAC SYM COB COB\$ REAINCOPE
 1458 2667 MAC SYM COB COB\$ REASMIN
 1458 2668 MAC SYM COB COB\$ REAUNOFIL
 1458 2669 MAC SYM COB COB\$ REACTPER
 1458 2670 MAC SYM COB COB\$ REACTUSE
 1458 2671 MAC SYM COB COB\$ RECLOCDEL
 1458 2672 MAC SYM COB COB\$ RECLOCREA
 1458 2673 MAC SYM COB COB\$ RECLOCREW
 1458 2674 MAC SYM COB COB\$ RECLOCSTA

1458	2675	MAC	SYM	COB	COBS-RECLOCWRI
1458	2676	MAC	SYM	COB	COBS-RECLOC OK
1458	2677	MAC	SYM	COB	COBS-RECNOTEXI
1458	2678	MAC	SYM	COB	COBS-RECNOTLOC
1458	2679	MAC	SYM	COB	COBS-REWCREDUP
1458	2680	MAC	SYM	COB	COBS-REWDISDUP
1458	2681	MAC	SYM	COB	COBS-REWINCOPE
1458	2682	MAC	SYM	COB	COBS-REWNO R S
1458	2683	MAC	SYM	COB	COBS-REWSMAMIN
1458	2684	MAC	SYM	COB	COBS-REWUNOFIL
1458	2685	MAC	SYM	COB	COBS-SETEXTFAI
1458	2686	MAC	SYM	COB	COBS-STAINCOPE
1458	2687	MAC	SYM	COB	COBS-STAUUNOFIL
1458	2688	MAC	SYM	COB	COBS-SUBOVELON
1458	2689	MAC	SYM	COB	COBS-TIMOVELON
1458	2690	MAC	SYM	COB	COBS-UNDEF EXP
1458	2691	MAC	SYM	COB	COBS-UNEIN5CON
1458	2692	MAC	SYM	COB	COBS-UNLNU CUR
1458	2693	MAC	SYM	COB	COBS-UNLUUNOFIL
1458	2694	MAC	SYM	COB	COBS-WRIBEYBOU
1458	2695	MAC	SYM	COB	COBS-WRICREDUP
1458	2696	MAC	SYM	COB	COBS-WRIDISDUP
1458	2697	MAC	SYM	COB	COBS-WRIDUPALT
1458	2698	MAC	SYM	COB	COBS-WRIDUPKEY
1458	2699	MAC	SYM	COB	COBS-WRIINCOPE
1458	2700	MAC	SYM	COB	COBS-WRINOTASC
1458	2701	MAC	SYM	COB	COBS-WRISMAMIN
1458	2702	MAC	SYM	COB	COBS-WRIUNOFIL

```
1458 2704 :+
1458 2705 : The following routines are N O T in the sharable library. They
1458 2706 : are tabulated here to provide a complete tabulation of all entry
1458 2707 : points known to COBOL when this module is assembled in the "ALLLBL"
1458 2708 : mode.
1458 2709 :-
1458 2710
1458 2711 : MODULE COBSCALL -- Support COBOL CALL
1458 2712     MAC    NOVECT   COB    COB$CALL
1458 2713
1458 2714 : MODULE COBSCANCEL -- Support COBOL CANCEL
1458 2715     MAC    NOVECT   COB    COB$CANCEL
1458 2716
1458 2717 : MODULE COB$CNVOUT -- Support conversion routines
1458 2718     MAC    NOVECT   COB    COB$CNVOUT
1458 2719
1458 2720 : MODULE COB$CVTDP -- Convert Double to Packed
1458 2721     MAC    NOVECT   COB    COB$CVTDP_R9
1458 2722
1458 2723 : MODULE COB$CVTRDP -- Convert Rounded Double to Packed
1458 2724     MAC    NOVECT   COB    COB$CVTRDP_R9
1458 2725
1458 2726 : MODULE COB$CVTPD -- Convert Packed to Double
1458 2727     MAC    NOVECT   COB    COB$CVTPD_R9
1458 2728
1458 2729 : MODULE COB$CVTDQ -- Convert Double to Quadword
1458 2730     MAC    NOVECT   COB    COB$CVTDQ_R8
1458 2731
1458 2732 : MODULE COB$CVTRDQ -- Convert Rounded Double to Quadword
1458 2733     MAC    NOVECT   COB    COB$CVTRDQ_R8
1458 2734
1458 2735 : MODULE COB$CVTQD -- Convert Quadword to Double
1458 2736     MAC    NOVECT   COB    COB$CVTQD_R8
1458 2737
1458 2738 : MODULE COB$CVTFP -- Convert Floating to Packed
1458 2739     MAC    NOVECT   COB    COB$CVTFP_R9
1458 2740
1458 2741 : MODULE COB$CVTRFP -- Convert Rounded Floating to Packed
1458 2742     MAC    NOVECT   COB    COB$CVTRFP_R9
1458 2743
1458 2744 : MODULE COB$CVTPF -- Convert Packed to Floating
1458 2745     MAC    NOVECT   COB    COB$CVTPF_R9
1458 2746
1458 2747 : MODULE COB$CVTFQ -- Convert Floating to Quadword
1458 2748     MAC    NOVECT   COB    COB$CVTFQ_R8
1458 2749
1458 2750 : MODULE COB$CVTRFQ -- Convert Rounded Floating to Quadword
1458 2751     MAC    NOVECT   COB    COB$CVTRFQ_R8
1458 2752
1458 2753 : MODULE COB$CVTQF -- Convert Quadword to Floating
1458 2754     MAC    NOVECT   COB    COB$CVTQF_R8
1458 2755
1458 2756 : MODULE COBSEXPI -- CIT exponentiation
1458 2757     MAC    NOVECT   COB    COBSEXPI
1458 2758     MAC    NOVECT   COB    COBSEXPI_OSE
1458 2759
1458 2760 : MODULE COBS$LINAGE -- Support LINAGE
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1458 2761      MAC    NOVECT COB    COBSLINKAGE
1458 2762      MAC    NOVECT COB    COBSINIT_LINAGE
1458 2763      MAC    NOVECT COB    COB$TERM_LINAGE
1458 2764
1458 2765 : MODULE COB$RMS_BLOCKS -- RMS data block
1458 2766      MAC    NOVECT COB    COB$AB_NAM
1458 2767
1458 2768 : MODULE COB$SET_SWITCH -- Set external switches
1458 2769      MAC    NOVECT COB    COB$SET_SWITCH
1458 2770
1458 2771 : MODULE COB$SWITCH -- Support switches
1458 2772      MAC    NOVECT COB    COB$SWITCH
1458 2773
1458 2774 : MODULE LIB$AB_ASC_EBC -- ASCII to EBCDIC translation table
1458 2775      MAC    NOVECT LIB    LIB$AB_ASC_EBC
1458 2776
1458 2777 : MODULE LIB$AB_CVT_O_U -- Overpunch to Unsigned translation table
1458 2778      MAC    NOVECT LIB    LIB$AB_CVT_O_U
1458 2779
1458 2780 : MODULE LIB$AB_EBC_ASC -- EBCDIC to ASCII translation table
1458 2781      MAC    NOVECT LIB    LIB$AB_EBC_ASC
1458 2782
```

1458 2784 : P O S T V M S V E R S I O N 2 . 0 A D D I T I O N S
1458 2785 : -----
1458 2786 :
1458 2787 : This point marks where the modules added after VMS Version 2.0 are
1458 2788 : placed (unless they fit in some existing hole).
1458 2789 : The vector entries to the shared components come first, and
1458 2790 : are then followed by the non-vectored (non-shared) entries and the new
1458 2791 : symbol definitions.
1458 2792 : There are two flavors of shared components -- those that are
1458 2793 : vectored and those that aren't. Those that aren't are in the shared
1458 2794 : image solely for the purpose of binding of VMSRTL.EXE, but are not
1458 2795 : accessible from outside of the image.
1458 2796 :
1458 2797 : S H A R E D C O M P O N E N T S (V E C T O R E D)
1458 2798 : -----
1458 2799 :
1458 2800 :
1458 2801 : MODULE LIB\$LUN
1458 2802 : MAC CALL LIB LIB\$FREE_LUN
1460 2803 : MAC CALL LIB LIB\$GET_LUN
1468 2804 :
1468 2805 : MODULE LIB\$EF
1468 2806 : MAC CALL LIB LIB\$FREE_EF
1470 2807 : MAC CALL LIB LIB\$GET_EF
1478 2808 : MAC CALL LIB LIB\$RESERVE_EF
1480 2809 :
1480 2810 : MODULE LIB\$ANALYZE_SDESC
1480 2811 : MAC CALL LIB LIB\$ANALYZE_SDESC
1488 2812 : MAC JSB LIB LIB\$ANALYZE_SDESC_R2
1490 2813 :
1490 2814 : MODULE STR\$ANALYZE_SDESC
1490 2815 : MAC CALL STR STR\$ANALYZE_SDESC
1498 2816 : MAC JSB STR STR\$ANALYZE_SDESC_R1
14A0 2817 :
14A0 2818 : MODULE LIB\$FILESCAN -- find files matching wild-card description
14A0 2819 : MAC CALL LIB LIB\$FILE_SCAN
14A8 2820 : MAC CALL LIB LIB\$FIND_FILE
14B0 2821 :
14B0 2822 :
14B0 2823 :
14B0 2824 : S H A R E D C O M P O N E N T S (N O N - V E C T O R E D)
14B0 2825 : -----
14B0 2826 :
14B0 2827 : MODULE STR\$\$CHECK_STATUS
14B0 2828 : MAC NOVECT STR STR\$\$CHECK_STATUS_R2
14B0 2829 :
14B0 2830 :
14B0 2831 : N O N - S H A R E D C O M P O N E N T S
14B0 2832 : -----
14B0 2833 :
14B0 2834 : MODULE LIB\$AB_ASC_EBC_REV -- Reversible ASCII to EBCDIC trans. table
14B0 2835 : MAC NOVECT LIB LIB\$AB_ASC_EBC_REV
14B0 2836 :
14B0 2837 : MODULE LIB\$AB_EBC_ASC_REV -- Reversible EBCDIC to ASCII trans. table
14B0 2838 : MAC NOVECT LIB LIB\$AB_EBC_ASC_REV
14B0 2839 :
14B0 2840 : MODULE LIB\$AB_CVTPT_Z -- packed decimal to zoned translation table

14B0 2841 MAC NOVECT LIB LIB\$AB_CVTPT_Z
14B0 2842
14B0 2843 : MODULE LIB\$AB_CVTTP_Z -- zoned to packed decimal translation table
14B0 2844 MAC NOVECT LIB LIB\$AB_CVTTP_Z
14B0 2845
14B0 2846 : MODULE LIB\$CALLG -- execute CALLG instruction
14B0 2847 MAC NOVECT LIB LIB\$CALLG
14B0 2848
14B0 2849 : MODULE LIB\$DECODE_FAULT -- decode instruction stream
14B0 2850 MAC NOVECT LIB LIB\$DECODE_FAULT
14B0 2851
14B0 2852 : MODULE LIB\$EDIV -- execute EDIV instruction
14B0 2853 MAC NOVECT LIB LIB\$EDIV
14B0 2854
14B0 2855 : MODULE LIB\$EMUL -- execute EMUL instruction
14B0 2856 MAC NOVECT LIB LIB\$EMUL
14B0 2857
14B0 2858 : MODULE LIB\$MOVC3 -- execute MOVC3 instruction
14B0 2859 MAC NOVECT LIB LIB\$MOVC3
14B0 2860
14B0 2861 : MODULE LIB\$MOVC5 -- execute MOVC5 instruction
14B0 2862 MAC NOVECT LIB LIB\$MOVC5
14B0 2863
14B0 2864 : MODULE COB\$AB_DEEDIT -- COBOL translation table for "de-editing"
14B0 2865 MAC NOVECT COB COB\$AB_DEEDIT
14B0 2866
14B0 2867 : MODULE COB\$DBEXCEPTION -- COBOL Data Base Exception Processing
14B0 2868 MAC NOVECT COB COB\$DBEXCEPTION
14B0 2869
14B0 2870 : MODULE COB\$AB_SPANC2 -- COBOL SPANC translation table II
14B0 2871 MAC NOVECT COB COB\$AB_SPANC2
14B0 2872
14B0 2873 : MODULE LIB\$CVTDXDX -- LIB general data type conversion routine
14B0 2874 MAC NOVECT LIB LIB\$CVT_DX_DX
14B0 2875
14B0 2876 : MODULE LIB\$\$PACK_ARITH -- perform packed arithmetic for STR\$DIVIDE
14B0 2877 MAC NOVECT LIB LIB\$SCVT_STR_PACK_R9
14B0 2878 MAC NOVECT LIB LIB\$CALC_D_R7
14B0 2879 MAC NOVECT LIB LIB\$CALC_Q_R9
14B0 2880 MAC NOVECT LIB LIB\$ADJUST_Q_R9
14B0 2881 MAC NOVECT LIB LIB\$MUL_PACK_R10
14B0 2882 MAC NOVECT LIB LIB\$SUB_PACK_R8
14B0 2883 MAC NOVECT LIB LIB\$ROUND_R7
14B0 2884 MAC NOVECT LIB LIB\$SCVT_PACK_STR_R8
14B0 2885
14B0 2886 : MODULE STR\$ARITH -- string arithmetic (added entry point STR\$DIVIDE)
14B0 2887 MAC NOVECT STR STR\$DIVIDE
14B0 2888
14B0 2889 : MODULE FOR\$INIUND -- FORTRAN underflow handler initialization
14B0 2890 MAC NOVECT FOR FOR\$INIT_UNDER
14B0 2891
14B0 2892 : MODULE FOR\$UNDERF -- FORTRAN underflow handler
14B0 2893 MAC NOVECT FOR FOR\$UNDERFLOW_HANDLER
14B0 2894
14B0 2895 : MODULE OTSSPOWLULU -- unsigned ** unsigned integer power
14B0 2896 MAC NOVECT OTS OTSSPOWLULU
14B0 2897

1480 2898 : MODULE STR\$COMPARE CASE_BLIND -- Compare strings case-blind
1480 2899 MAC NOVECT STR STR\$CASE_BLIND_COMPARE
1480 2900
1480 2901 : MODULE STR\$FIND FIRST -- Find 1st char in or not in set
1480 2902 MAC NOVECT STR STR\$FIND_FIRST_IN_SET
1480 2903 MAC NOVECT STR STR\$FIND_FIRST_NOT_IN_SET
1480 2904
1480 2905 : MODULE STR\$FIND FIRST_SUBSTRING -- Find first substring
1480 2906 MAC NOVECT STR STR\$FIND_FIRST_SUBSTRING
1480 2907
1480 2908 : NEW ENTRY POINTS FOR VAX BASIC 2.0
1480 2909 : -----
1480 2910
1480 2911 : MODULE BAS\$CVTTP -- Basic convert text to packed
1480 2912 MAC CALL BAS BAS\$CVT_T_P
1488 2913
1488 2914 : MODULE LIB\$\$ADDP -- add packed instruction for BAS\$CVT_T_P
1488 2915 MAC NOVECT LIB LIB\$\$ADDP_R7
1488 2916
1488 2917 : MODULE BAS\$UPI_TERM_IO
1488 2918 : (use up addr vacated by LIB\$\$ADDP R7)
1488 2919 MAC CALL BAS BAS\$IN_B_R
14C0 2920
14C0 2921 : MODULE OTSS\$CNVOUT -- convert floating to E formatted text
14C0 2922 : (shared, not vectored)
14C0 2923 MAC NOVECT OTS OTSS\$CNVOUT
14C0 2924
14C0 2925 : OLD ENTRY POINTS FOR MODULE BAS\$CVTOUT, originally overlooked
14C0 2926 MAC CALL BAS BAS\$CVT_OUT_F_E
14C8 2927 MAC CALL BAS BAS\$CVT_OUT_F_F
14D0 2928 MAC CALL BAS BAS\$CVT_OUT_D_E
14D8 2929 MAC CALL BAS BAS\$CVT_OUT_D_F
14E0 2930 MAC CALL BAS BAS\$CVT_OUT_D_G
14E8 2931
14E8 2932 : NEW ENTRY POINTS FOR MODULE BAS\$CVTOUT, Basic output conversion
14E8 2933 MAC CALL BAS BAS\$CVT_OUT_G_E
14F0 2934 MAC CALL BAS BAS\$CVT_OUT_G_F
14F8 2935 MAC CALL BAS BAS\$CVT_OUT_G_G
1500 2936 MAC CALL BAS BAS\$CVT_OUT_H_E
1508 2937 MAC CALL BAS BAS\$CVT_OUT_H_F
1510 2938 MAC CALL BAS BAS\$CVT_OUT_H_G
1518 2939 MAC CALL BAS BAS\$CVT_OUT_P_E
1520 2940 MAC CALL BAS BAS\$CVT_OUT_P_F
1528 2941 MAC CALL BAS BAS\$CVT_OUT_P_G
1530 2942
1530 2943 : NEW ENTRY POINTS FOR MODULE BAS\$CMPAPP, Basic compare approximate
1530 2944 MAC CALL BAS BAS\$CMPG_APP
1538 2945 MAC CALL BAS BAS\$CMPPH_APP
1540 2946
1540 2947 : NEW ENTRY POINTS FOR MODULE BAS\$COPYFD, Basic copy floating
1540 2948 : (shared, not vectored)
1540 2949 MAC NOVECT BAS BAS\$COPY_G_R1
1540 2950 MAC NOVECT BAS BAS\$COPY_H_R3
1540 2951
1540 2952 : NEW ENTRY POINTS FOR MODULE BAS\$NUM, Basic NUM function
1540 2953 MAC CALL BAS BAS\$NUM_G
1548 2954 MAC CALL BAS BAS\$NUM_H

1550 2955 MAC CALL BAS BASSNUM_P
1558 2956 :
1558 2957 : NEW ENTRY POINTS FOR MODULE BASSNUM1, Basic NUM1 function
1558 2958 MAC CALL BAS BASSNUM1_G
1560 2959 MAC CALL BAS BASSNUM1_H
1568 2960 MAC CALL BAS BASSNUM1_P
1570 2961 :
1570 2962 : NEW ENTRY POINTS FOR MODULE BASSSTR, Basic STR\$ function
1570 2963 MAC CALL BAS BASSSTR_G
1578 2964 MAC CALL BAS BASSSTR_H
1580 2965 MAC CALL BAS BASSSTR_P
1588 2966 :
1588 2967 : NEW ENTRY POINTS FOR MODULE BASSUPI TERM IO, Basic UPI level I/O
1588 2968 MAC CALL BAS BASSOUT_G_V_S
1590 2969 MAC CALL BAS BASSOUT_G_V_B
1598 2970 MAC CALL BAS BASSOUT_G_V_C
15A0 2971 MAC CALL BAS BASSOUT_H_V_S
15A8 2972 MAC CALL BAS BASSOUT_H_V_B
15B0 2973 MAC CALL BAS BASSOUT_H_V_C
15B8 2974 MAC CALL BAS BASSOUT_P_DX_S
15C0 2975 MAC CALL BAS BASSOUT_P_DX_B
15C8 2976 MAC CALL BAS BASSOUT_P_DX_C
15D0 2977 MAC CALL BAS BASSIN_G_R
15D8 2978 MAC CALL BAS BASSIN_H_R
15E0 2979 MAC CALL BAS BASSIN_P_RX
15E8 2980 :
15E8 2981 : NEW ENTRY POINTS FOR BASSVAL, Basic VAL function
15E8 2982 MAC CALL BAS BASSVAL_G
15F0 2983 MAC CALL BAS BASSVAL_H
15F8 2984 MAC CALL BAS BASSVAL_P
1600 2985 :
1600 2986 : MODULE BASS\$REC_PROC
1600 2987 : this is needed for BASSANSI_TAB, a non-shared entry point
1600 2988 MAC JSB BAS BASS\$REC_WSL1
1608 2989 :
1608 2990 : MODULE BASFIND, new entry point
1608 2991 MAC CALL BAS BASS\$FIND_RFA
1610 2992 :
1610 2993 : MODULE BASGET, new entry point
1610 2994 MAC CALL BAS BASS\$GET_RFA
1618 2995 :
1618 2996 : MODULE BASGETRFA, new
1618 2997 MAC CALL BAS BASS\$GETRFA
1620 2998 :
1620 2999 : MODULE BASCB, old entry point must be vectored for improved BASKILL
1620 3000 MAC CALL BAS BASS\$NEXT_LUN
1628 3001 :
1628 3002 : MODULE BASIOBEG, new entry point
1628 3003 MAC CALL BAS BASSANSI_INPUT
1630 3004 :
1630 3005 : MODULE BASIOEND, new entry point
1630 3006 MAC CALL BAS BASSANSI_IO_END
1638 3007 :
1638 3008 : MODULE BASCTRLC, all entry points
1638 3009 MAC CALL BAS BASS\$CTRLC
1640 3010 MAC CALL BAS BASS\$RCTRLC
1648 3011 MAC CALL BAS BASS\$CTRLC_INIT

VMS\$VECTOR
4-003

- Define entry vectors for VMSRTL

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1650 3012

VM
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04 04 04 04 04 04 04 04 04	1650
04 04 04 04 04 04 04 04 04	3028
09 09 09 04 04 04 04 04 04	1658
09 09 09 09 09 09 09 09 09	3029
09 09 09 09 09 09 09 09 09	1660
OE OE OE OE OE OE OE	3030
OE OE OE OE OE OE OE	1668
13 13 13 13 13 13 13 13	3031
18 18 13 13 13 13 13 13	1670
18 18 18 18 18 18 18 18	3032
1D 1D 1D 1D 1D 1D 1D 1D	1678
22 22 22 22 22 22 22 22	3033
2C 27 27 27 27 27 27 22	1680
31 31 31 31 2C 2C 2C 2C	3034
45 40 40 3B 3B 36 36 36	1688
FF FF FF FF FF FF FF	3035
32 37 3C 41 FF FF FF FF	1690
23 23 28 28 28 2D 2D 32	3036
19 1E 1E 1E 1E 23 23 23	16A0
14 14 19 19 19 19 19 19	3037
OF 14 14 14 14 14 14 14	16A8
OF OF OF OF OF OF OF	3038
0A 0A 0A 0A 0A 0F 0F 0F	16C0
0A 0A 0A 0A 0A 0A 0A 0A	3042
05 05 05 05 05 05 05 05	16C8
05 05 05 05 05 05 05 05	3043
00 00 00 00 05 05 05 05	16D0
00 00 00 00 00 00 00 00	3044
00 00 00 00 00 00 00 00	16D8
19 1E 1E 1E 1E 23 23 23	3045
14 14 19 19 19 19 19 19	16E0
OF 14 14 14 14 14 14 14	3046
OF OF OF OF OF OF OF	16E8
0A 0A 0A 0A 0A 0A 0A 0A	3047
0A 0A 0A 0A 0A 0A 0A 0A	16F0
0A 0A 0A 0A 0A 0A 0A 0A	3049
0A 0A 0A 0A 0A 0A 0A 0A	1700
0A 0A 0A 0A 0A 0A 0A 0A	3050
05 05 05 05 05 05 05 05	1708
05 05 05 05 05 05 05 05	3051
05 05 05 05 05 05 05 05	1710
05 05 05 05 05 05 05 05	3052
05 05 05 05 05 05 05 05	1718
05 05 05 05 05 05 05 05	3053
00 00 00 00 05 05 05 05	1720
00 00 00 00 00 00 00 00	3054
00 00 00 00 00 00 00 00	1728
00 00 00 00 00 00 00 00	3055
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.SBTTL MTH\$SAB ALOG - Table for ALOG routines

The MTH\$SAB ALOG table is accessed by the low order exponent bit and the first 7 fraction bits (not including the hidden bit) of the argument. The table entries are offsets into the F_FHI table. Note that the MTH\$SAB ALOG table is data type independent and is used by all four LOG routines.

This table is a duplicate of that in MTHALOG.MAR, but must remain separate.

MTH\$SAB ALOG:

.BYTE	^X04, ^X04, ^X04, ^X04, ^X04, ^X04, ^X04, ^X04
.BYTE	^X04, ^X04, ^X04, ^X04, ^X04, ^X04, ^X04, ^X04
.BYTE	^X04, ^X04, ^X04, ^X04, ^X04, ^X09, ^X09, ^X09
.BYTE	^X09, ^X09, ^X09, ^X09, ^X09, ^X09, ^X09, ^X09
.BYTE	^X09, ^X09, ^X09, ^X09, ^X09, ^X09, ^X09, ^X09
.BYTE	^X0E, ^X0E, ^X0E, ^X0E, ^X0E, ^X0E, ^X0E, ^X0E
.BYTE	^X0E, ^X0E, ^X0E, ^X0E, ^X0E, ^X0E, ^X0E, ^X0E
.BYTE	^X13, ^X13, ^X13, ^X13, ^X13, ^X13, ^X13, ^X13
.BYTE	^X13, ^X13, ^X13, ^X13, ^X13, ^X13, ^X13, ^X13
.BYTE	^X18, ^X18, ^X18, ^X18, ^X18, ^X18, ^X18, ^X18
.BYTE	^X18, ^X1D, ^X1D, ^X1D, ^X1D, ^X1D, ^X1D, ^X1D
.BYTE	^X1D, ^X1D, ^X22, ^X22, ^X22, ^X22, ^X22, ^X22
.BYTE	^X22, ^X27, ^X27, ^X27, ^X27, ^X27, ^X27, ^X2C
.BYTE	^X2C, ^X2C, ^X2C, ^X2C, ^X31, ^X31, ^X31, ^X31
.BYTE	^X36, ^X36, ^X36, ^X3B, ^X3B, ^X40, ^X40, ^X45
.BYTE	^XFF, ^XFF, ^XFF, ^XFF, ^XFF, ^XFF, ^XFF, ^XFF
.BYTE	^XFF, ^XFF, ^XFF, ^X41, ^X3C, ^X37, ^X32
.BYTE	^X32, ^X2D, ^X2D, ^X28, ^X28, ^X28, ^X28, ^X23
.BYTE	^X23, ^X23, ^X1E, ^X1E, ^X1E, ^X1E, ^X1E, ^X19
.BYTE	^X19, ^X19, ^X19, ^X19, ^X19, ^X19, ^X19, ^X19
.BYTE	^X14, ^X14, ^X14, ^X14, ^X14, ^X14, ^X14, ^X0F
.BYTE	^X0F, ^X0F, ^X0F, ^X0F, ^X0F, ^X0F, ^X0F, ^X0F
.BYTE	^X0F, ^X0F, ^X0F, ^XOA, ^XOA, ^XOA, ^XOA, ^XOA
.BYTE	^XOA, ^XOA, ^XOA, ^XOA, ^XOA, ^XOA, ^XOA, ^XOA
.BYTE	^XOA, ^XOA, ^XOA, ^XOA, ^X05, ^X05, ^X05
.BYTE	^X05, ^X05, ^X05, ^X05, ^X05, ^X05, ^X05
.BYTE	^X05, ^X05, ^X05, ^X05, ^X05, ^X05, ^X05
.BYTE	^X05, ^X05, ^X05, ^X00, ^X00, ^X00, ^X00
.BYTE	^X00, ^X00, ^X00, ^X00, ^X00, ^X00, ^X00, ^X00
.BYTE	^X00, ^X00, ^X00, ^X00, ^X00, ^X00, ^X00, ^X00
.BYTE	^X00, ^X00, ^X00, ^X00, ^X00, ^X00, ^X00, ^X00

1750 3061 .SBTTL MTH\$SAB_ATAN - Table for ATAN routines
1750 3062
1750 3063 :
1750 3064 : The MTH\$SAB_ATAN table is a table of byte entries used to obtain an index
1750 3065 : into the ATAN_TABLE. MTH\$SAB_ATAN is indexed using the low order bits of
1750 3066 : the exponent field and the high order bits of the fraction field. The
1750 3067 : MTH\$SAB_ATAN table is independent of the data type and is used by all of
1750 3068 : the arctangent routines.
1750 3069 :
1750 3070 : This table is a duplicate of that in MTHATAN.MAR, but must remain
1750 3071 : separate.
1750 3072 :
1750 3073 MTH\$SAB_ATAN:
09 06 06 03 03 00 00 00 1750 3074 .BYTE ^X00, ^X00, ^X00, ^X03, ^X03, ^X06, ^X06, ^X09
12 0F 0F 0C 0C 0C 09 09 1758 3075 .BYTE ^X09, ^X09, ^X0C, ^X0C, ^X0F, ^X0F, ^X12
18 18 18 15 15 15 12 12 1760 3076 .BYTE ^X12, ^X12, ^X15, ^X15, ^X15, ^X18, ^X18, ^X18
21 1E 1E 1E 1B 1B 1B 1B 1768 3077 .BYTE ^X1B, ^X1B, ^X1B, ^X1B, ^X1E, ^X1E, ^X1E, ^X21
24 24 24 24 21 21 21 21 1770 3078 .BYTE ^X21, ^X21, ^X21, ^X21, ^X24, ^X24, ^X24, ^X24
27 27 27 27 27 27 24 24 1778 3079 .BYTE ^X24, ^X24, ^X27, ^X27, ^X27, ^X27, ^X27, ^X27
27 27 27 27 27 27 27 27 1780 3080 .BYTE ^X27, ^X27, ^X27, ^X27, ^X27, ^X27, ^X27, ^X27
1787 3081
1787 3082 .END

\$\$BASS\$BLNK LINE
 \$\$BASS\$CB GET
 \$\$BASS\$CB-POP
 \$\$BASS\$CB-PUSH
 \$\$BASS\$CLOSE_ALL
 \$\$BASS\$CTRLC_INIT
 \$\$BASS\$ERR_INIT
 \$\$BASS\$FORMAT_INT
 \$\$BASS\$NEXT_LUN
 \$\$BASS\$OPEN_ZERO
 \$\$BASS\$RECOG_INIT
 \$\$BASS\$REC_WSL1
 \$\$BASS\$SCALE_L_R1
 \$\$BASS\$SCALE_RT
 \$\$BASS\$SIGNAL
 \$\$BASS\$SIGNAL_IO
 \$\$BASS\$STATU_INIT
 \$\$BASS\$STOP
 \$\$BASS\$STOP_IO
 \$\$BASS\$STOP_RMS
 \$\$BASS\$UDF_RL1
 \$\$BASS\$UDF_WL1
 \$\$BASS\$ANSI_INPUT
 \$\$BASS\$ANSI_IO_END
 \$\$BASS\$BUFSIZ
 \$\$BASS\$CANTYFAHEAD
 \$\$BASS\$CCPOS
 \$\$BASS\$CHR
 \$\$BASS\$CLOSE
 \$\$BASS\$CMPD_APP
 \$\$BASS\$CMPF_APP
 \$\$BASS\$CMPG_APP
 \$\$BASS\$CMPH_APP
 \$\$BASS\$CTRLC
 \$\$BASS\$CVT_OUT_D_E
 \$\$BASS\$CVT_OUT_D_F
 \$\$BASS\$CVT_OUT_D_G
 \$\$BASS\$CVT_OUT_F_E
 \$\$BASS\$CVT_OUT_F_F
 \$\$BASS\$CVT_OUT_G_E
 \$\$BASS\$CVT_OUT_G_F
 \$\$BASS\$CVT_OUT_G_G
 \$\$BASS\$CVT_OUT_H_E
 \$\$BASS\$CVT_OUT_H_F
 \$\$BASS\$CVT_OUT_H_G
 \$\$BASS\$CVT_OUT_P_E
 \$\$BASS\$CVT_OUT_P_F
 \$\$BASS\$CVT_OUT_P_G
 \$\$BASS\$CVT_T_P
 \$\$BASS\$DELETE
 \$\$BASS\$DSCALE_D_R1
 \$\$BASS\$EDIT
 \$\$BASS\$END_DEF_R8
 \$\$BASS\$END_DFS_R8
 \$\$BASS\$END_GSB_R8
 \$\$BASS\$END_R8
 \$\$BASS\$ERL

00000BA0 RG 01	\$\$BASS\$ERN	00000988 RG 01
00000B80 RG 01	\$\$BASS\$ERR	00000978 RG 01
00000B70 RG 01	\$\$BASS\$ERROR	00000B50 RG 01
00000B78 RG 01	\$\$BASS\$ERT	00000990 RG 01
00000BF8 RG 01	\$\$BASS\$FIND	00000AC8 RG 01
00001648 RG 01	\$\$BASS\$FIND_KEY	00000AD8 RG 01
00000B88 RG 01	\$\$BASS\$FIND_RECORD	00000ADO RG 01
00000BF0 RG 01	\$\$BASS\$FIND_RFA	00001608 RG 01
00001620 RG 01	\$\$BASS\$FREE	00000B18 RG 01
00000B90 RG 01	\$\$BASS\$GET	00000A90 RG 01
00000B98 RG 01	\$\$BASS\$GETRFA	00001618 RG 01
00001600 RG 01	\$\$BASS\$GET_KEY	00000AA0 RG 01
00000BD8 RG 01	\$\$BASS\$GET_RECORD	00000A98 RG 01
00000BE0 RG 01	\$\$BASS\$GET_RFA	00001610 RG 01
00000BA8 RG 01	\$\$BASS\$HANDLER	00000998 RG 01
00000BB0 RG 01	\$\$BASS\$INIT_DEF_R8	00000920 RG 01
00000BB8 RG 01	\$\$BASS\$INIT_DFS_R8	00000928 RG 01
00000BC0 RG 01	\$\$BASS\$INIT_GOSUB	00000930 RG 01
00000BC8 RG 01	\$\$BASS\$INIT_R8	00000918 RG 01
00000BE8 RG 01	\$\$BASS\$INPUT	000009A0 RG 01
00000C00 RG 01	\$\$BASS\$INPUT_LINE	000009B0 RG 01
00000C08 RG 01	\$\$BASS\$INSTR	000008B0 RG 01
00001628 RG 01	\$\$BASS\$IN_B_R	000014B8 RG 01
00001630 RG 01	\$\$BASS\$IN_D_R	000009F0 RG 01
00000B40 RG 01	\$\$BASS\$IN_F_R	000009E8 RG 01
00000BDO RG 01	\$\$BASS\$IN_G_R	000015D0 RG 01
00000B20 RG 01	\$\$BASS\$IN_H_R	000015D8 RG 01
00000B48 RG 01	\$\$BASS\$IN_L_R	000009E0 RG 01
00000A88 RG 01	\$\$BASS\$IN_P_DX	000015E0 RG 01
00000890 RG 01	\$\$BASS\$IN_T_DX	000009F8 RG 01
00000888 RG 01	\$\$BASS\$IN_W_R	000009D8 RG 01
00001530 RG 01	\$\$BASS\$IO-END	000009D0 RG 01
00001538 RG 01	\$\$BASS\$INPUT	000009A8 RG 01
00001638 RG 01	\$\$BASS\$MAT_INPUT	00000A68 RG 01
000014D0 RG 01	\$\$BASS\$MAT_LINPUT	00000A70 RG 01
000014D8 RG 01	\$\$BASS\$MAT_PRINT	00000A60 RG 01
000014E0 RG 01	\$\$BASS\$MAT_READ	00000A78 RG 01
000014C0 RG 01	\$\$BASS\$NUMT_D	000008F0 RG 01
000014C8 RG 01	\$\$BASS\$NUM1_F	000008E8 RG 01
000014E8 RG 01	\$\$BASS\$NUM1_G	00001558 RG 01
000014F0 RG 01	\$\$BASS\$NUM1_H	00001560 RG 01
000014F8 RG 01	\$\$BASS\$NUM1_L	000008F8 RG 01
00001500 RG 01	\$\$BASS\$NUM1_P	00001568 RG 01
00001508 RG 01	\$\$BASS\$NUM_D	000008D8 RG 01
00001510 RG 01	\$\$BASS\$NUM_F	000008D0 RG 01
00001518 RG 01	\$\$BASS\$NUM_G	00001540 RG 01
00001520 RG 01	\$\$BASS\$NUM_H	00001548 RG 01
00001528 RG 01	\$\$BASS\$NUM_L	000008E0 RG 01
000014B0 RG 01	\$\$BASS\$NUM_P	00001550 RG 01
00000AE0 RG 01	\$\$BASS\$ON_ERR_BK	00000960 RG 01
00000B80 RG 01	\$\$BASS\$ON_ERR_Z	00000958 RG 01
000008A8 RG 01	\$\$BASS\$OPEN	00000A80 RG 01
00000940 RG 01	\$\$BASS\$OUT_D_V_B	00000A38 RG 01
00000948 RG 01	\$\$BASS\$OUT_D_V_C	00000A40 RG 01
00000950 RG 01	\$\$BASS\$OUT_D_V_S	00000A30 RG 01
00000938 RG 01	\$\$BASS\$OUT_F_V_B	00000A20 RG 01
00000980 RG 01	\$\$BASS\$OUT_F_V_C	00000A28 RG 01

\$SBASSOUT_F_V_S	00000A18 RG	01	\$SCOB\$ACC_TIME	00001400 RG	01
\$SBASSOUT_G_V_B	00001590 RG	01	\$SCOB\$ADDI	00001330 RG	01
\$SBASSOUT_G_V_C	00001598 RG	01	\$SCOB\$CMPI	00001358 RG	01
\$SBASSOUT_G_V_S	00001588 RG	01	\$SCOB\$CVTDI_R7	00001360 RG	01
\$SBASSOUT_H_V_B	000015A8 RG	01	\$SCOB\$CVTFI_R7	00001368 RG	01
\$SBASSOUT_H_V_C	000015B0 RG	01	\$SCOB\$CVTID_R7	00001370 RG	01
\$SBASSOUT_H_V_S	000015A0 RG	01	\$SCOB\$CVTIF_R7	00001378 RG	01
\$SBASSOUT_L_V_B	00000A08 RG	01	\$SCOB\$CVTIL_R8	00001380 RG	01
\$SBASSOUT_L_V_C	00000A10 RG	01	\$SCOB\$CVTIP_R9	00001388 RG	01
\$SBASSOUT_L_V_S	00000A00 RG	01	\$SCOB\$CVTIQ_R8	00001390 RG	01
\$SBASSOUT_P_DX_B	000015C0 RG	01	\$SCOB\$CVTIW_R8	00001398 RG	01
\$SBASSOUT_P_DX_C	000015C8 RG	01	\$SCOB\$CVTLI_R8	000013A0 RG	01
\$SBASSOUT_P_DX_S	000015B8 RG	01	\$SCOB\$CVTPI_R9	000013A8 RG	01
\$SBASSOUT_T_DX_B	00000A50 RG	01	\$SCOB\$CVTPQ_R9	00001438 RG	01
\$SBASSOUT_T_DX_C	00000A58 RG	01	\$SCOB\$CVTQI_R8	000013B0 RG	01
\$SBASSOUT_T_DX_S	00000A48 RG	01	\$SCOB\$CVTQP_R9	00001440 RG	01
\$SBASSPOP_ERR	00000B68 RG	01	\$SCOB\$CVTRI_C_R8	000013B8 RG	01
\$SBASSPRINT	000009C0 RG	01	\$SCOB\$CVTRIP_R9	000013C0 RG	01
\$SBASSPRINT_USING	000009C8 RG	01	\$SCOB\$CVTRIQ_R8	000013C8 RG	01
\$SBASSPUSH_ERR	00000B60 RG	01	\$SCOB\$CVTRIW_R8	000013D0 RG	01
\$SBASSPUT	00000AA8 RG	01	\$SCOB\$CVTRPQ_R9	00001448 RG	01
\$SBASSPUT_COUNT	00000AB8 RG	01	\$SCOB\$CVTRQP_R9	00001450 RG	01
\$SBASSPUT_RECORD	00000AB0 RG	01	\$SCOB\$CVTTI_R8	000013D8 RG	01
\$SBAS\$PUT_REC_CNT	00000AC0 RG	01	\$SCOB\$CVTWI_R8	000013E0 RG	01
\$SBASSRCTRLC	00001640 RG	01	\$SCOB\$DISPLAY	00001410 RG	01
\$SBASSREAD	000009B8 RG	01	\$SCOB\$DISP_NO_ADV	00001418 RG	01
\$SBASSRECOUNT	00000B30 RG	01	\$SCOB\$DIVI	00001348 RG	01
\$SBASSRESTORE	00000AF8 RG	01	\$SCOB\$DIVI_OSE	00001350 RG	01
\$SBASSRESTORE_DAT	00000B28 RG	01	\$SCOB\$DIVQ_R8	00001420 RG	01
\$SBASSRESTORE_KEY	00000B00 RG	01	\$SCOB\$ERROR	00001328 RG	01
\$SBASSRESUME	00000968 RG	01	\$SCOB\$HANDLER	00001318 RG	01
\$SBASSRESUME_Z	00000970 RG	01	\$SCOB\$IOEXCEPTION	00001320 RG	01
\$SBASSRSET	00000898 RG	01	\$SCOB\$MULI	00001340 RG	01
\$SBASSRSET_R	000008A0 RG	01	\$SCOB\$MULQ_R8	00001428 RG	01
\$SBASSSCALE_D_R1	00000878 RG	01	\$SCOB\$PAUSE	00001430 RG	01
\$SBASSSCRATCH	00000B08 RG	01	\$SCOB\$SUBI	00001338 RG	01
\$SBASSSTATUS	00000B38 RG	01	\$SFOR\$SCB_GET	00000620 RG	01
\$SBASSSTR_D	000008C0 RG	01	\$SFOR\$SCB_POP	00000610 RG	01
\$SBASSSTR_F	000008B8 RG	01	\$SFOR\$SCB_PUSH	00000608 RG	01
\$SBASSSTR_G	00001570 RG	01	\$SFOR\$SCB_RET	00000618 RG	01
\$SBASSSTR_H	00001578 RG	01	\$SFOR\$ERRSNS_SAV	00000628 RG	01
\$SBASSSTR_L	000008C8 RG	01	\$SFOR\$FP_MATCH	00000728 RG	01
\$SBASSSTR_P	00001580 RG	01	\$SFORSBACKSPACE	00000180 RG	01
\$SBASSUNLOCK	00000B10 RG	01	\$SFORSCLOSE	00000000 RG	01
\$SBASSUPDATE	00000AE8 RG	01	\$SFOR\$CNV_IN_DEF	00000200 RG	01
\$SBASSUPDATE_COUN	00000AF0 RG	01	\$SFOR\$CNV_IN_I	00000210 RG	01
\$SBASSVAL_D	00000910 RG	01	\$SFOR\$CNV_IN_L	00000218 RG	01
\$SBASSVAL_F	00000908 RG	01	\$SFOR\$CNV_IN_O	00000220 RG	01
\$SBASSVAL_G	000015E8 RG	01	\$SFOR\$CNV_IN_Z	00000228 RG	01
\$SBASSVAL_H	000015F0 RG	01	\$SFOR\$CNV_OUT_D	000001A8 RG	01
\$SBASSVAL_L	00000900 RG	01	\$SFOR\$CNV_OUT_E	000001B0 RG	01
\$SBASSVAL_P	000015F8 RG	01	\$SFOR\$CNV_OUT_F	000001B8 RG	01
\$SBASSWAIT	00000CA0 RG	01	\$SFOR\$CNV_OUT_G	000001C0 RG	01
\$SCOB\$ACCEPT	00001408 RG	01	\$SFOR\$CNV_OUT_I	00000188 RG	01
\$SCOB\$ACC_DATE	000013E8 RG	01	\$SFOR\$CNV_OUT_L	00000190 RG	01
\$SCOB\$ACC_DAY	000013F0 RG	01	\$SFOR\$CNV_OUT_O	00000198 RG	01
\$SCOB\$ACC_DAYWEEK	000013F8 RG	01	\$SFOR\$CNV_OUT_Z	000001A0 RG	01

\$\$FOR\$CVT_D_TD	000001A8	RG	01	\$\$FOR\$IO_X_DA	00000170	RG	01
\$\$FOR\$CVT_D_TE	000001B0	RG	01	\$\$FOR\$IO_X_NL	00000748	RG	01
\$\$FOR\$CVT_D_TF	000001B8	RG	01	\$\$FOR\$IO_X_SB	00000740	RG	01
\$\$FOR\$CVT_D_TG	000001C0	RG	01	\$\$FOR\$IO_X_SE	00000750	RG	01
\$\$FOR\$CVT_G_TD	00000640	RG	01	\$\$FOR\$OPEN	00000178	RG	01
\$\$FOR\$CVT_G_TE	00000648	RG	01	\$\$FOR\$PAUSE	00000248	RG	01
\$\$FOR\$CVT_G_TF	00000650	RG	01	\$\$FOR\$RAB	00000788	RG	01
\$\$FOR\$CVT_G_TG	00000658	RG	01	\$\$FOR\$READ_DF	00000038	RG	01
\$\$FOR\$CVT_H_TD	00000668	RG	01	\$\$FOR\$READ_DO	00000040	RG	01
\$\$FOR\$CVT_H_TE	00000670	RG	01	\$\$FOR\$READ_DU	00000048	RG	01
\$\$FOR\$CVT_H_TF	00000678	RG	01	\$\$FOR\$READ_IF	000006C8	RG	01
\$\$FOR\$CVT_H_TG	00000680	RG	01	\$\$FOR\$READ_IO	000006D0	RG	01
\$\$FOR\$DECODE_MF	00000008	RG	01	\$\$FOR\$READ_KF	00000028	RG	01
\$\$FOR\$DECODE_MO	00000010	RG	01	\$\$FOR\$READ_KO	00000030	RG	01
\$\$FOR\$DEF_FICE	000001C8	RG	01	\$\$FOR\$READ_KU	00000708	RG	01
\$\$FOR\$DEF_FILE_W	000001D0	RG	01	\$\$FOR\$READ_SF	00000050	RG	01
\$\$FOR\$DELETE	000006E8	RG	01	\$\$FOR\$READ_SL	00000058	RG	01
\$\$FOR\$DELETE_D	000006F0	RG	01	\$\$FOR\$READ_SN	00000730	RG	01
\$\$FOR\$ENCODE_MF	00000018	RG	01	\$\$FOR\$READ_SO	00000060	RG	01
\$\$FOR\$ENCODE_MO	00000020	RG	01	\$\$FOR\$READ_SU	00000068	RG	01
\$\$FOR\$ENDFILE	000001D8	RG	01	\$\$FOR\$REWIND	00000250	RG	01
\$\$FOR\$ERRSNS	000001E0	RG	01	\$\$FOR\$REWRITE_SF	000006B0	RG	01
\$\$FOR\$ERRSNS_W	000001E8	RG	01	\$\$FOR\$REWRITE_SO	000006B8	RG	01
\$\$FOR\$EXIT	000001F0	RG	01	\$\$FOR\$REWRITE_SU	000006C0	RG	01
\$\$FOR\$EXIT_W	000001F8	RG	01	\$\$FOR\$SECNDS	00000258	RG	01
\$\$FOR\$FIND	00000208	RG	01	\$\$FOR\$STOP	00000260	RG	01
\$\$FOR\$INI_DES1_R2	00000230	RG	01	\$\$FOR\$UNLOCK	00000700	RG	01
\$\$FOR\$INI_DES2_R3	00000238	RG	01	\$\$FOR\$WRITE_DF	00000070	RG	01
\$\$FOR\$INI_DESC_R6	00000240	RG	01	\$\$FOR\$WRITE_DO	00000078	RG	01
\$\$FOR\$INQUIRE	000006F8	RG	01	\$\$FOR\$WRITE_DU	00000080	RG	01
\$\$FOR\$IO_B_R	000000E0	RG	01	\$\$FOR\$WRITE_IF	000006D8	RG	01
\$\$FOR\$IO_B_V	000000E8	RG	01	\$\$FOR\$WRITE_IO	000006E0	RG	01
\$\$FOR\$IO_DC_R	00000128	RG	01	\$\$FOR\$WRITE_SF	00000088	RG	01
\$\$FOR\$IO_DC_V	00000630	RG	01	\$\$FOR\$WRITE_SL	00000090	RG	01
\$\$FOR\$IO_D_R	000000C0	RG	01	\$\$FOR\$WRITE_SN	00000738	RG	01
\$\$FOR\$IO_D_V	000000C8	RG	01	\$\$FOR\$WRITE_SO	00000098	RG	01
\$\$FOR\$IO_END	000000A8	RG	01	\$\$FOR\$WRITE_SU	000000A0	RG	01
\$\$FOR\$IO_FC_R	00000140	RG	01	SSLIB\$ANALYZE_SDESC	00001480	RG	01
\$\$FOR\$IO_FC_V	00000148	RG	01	SSLIB\$ANALYZE_SDESC_R2	00001488	RG	01
\$\$FOR\$IO_F_R	000000B0	RG	01	SSLIB\$AST_IN_PROG	000004B0	RG	01
\$\$FOR\$IO_F_V	000000B8	RG	01	SSLIB\$ATTACH	00000770	RG	01
\$\$FOR\$IO_GC_R	00000130	RG	01	SSLIB\$CRC	000004B8	RG	01
\$\$FOR\$IO_GC_V	00000638	RG	01	SSLIB\$CRC_TABLE	000004C0	RG	01
\$\$FOR\$IO_G_R	00000108	RG	01	SSLIB\$DEC_OVER	000004C8	RG	01
\$\$FOR\$IO_G_V	00000110	RG	01	SSLIB\$ESTABLISH	000004D0	RG	01
\$\$FOR\$IO_H_R	00000118	RG	01	SSLIB\$EXTV	000004D8	RG	01
\$\$FOR\$IO_H_V	00000120	RG	01	SSLIB\$EXTZV	000004E0	RG	01
\$\$FOR\$IO_LU_R	00000150	RG	01	SSLIB\$FFC	000004E8	RG	01
\$\$FOR\$IO_LU_V	00000158	RG	01	SSLIB\$FFS	000004F0	RG	01
\$\$FOR\$IO_L_R	000000D0	RG	01	SSLIB\$FILE_SCAN	000014A0	RG	01
\$\$FOR\$IO_L_V	000000D8	RG	01	SSLIB\$FIND_FILE	000014A8	RG	01
\$\$FOR\$IO_T_DS	000000F0	RG	01	SSLIB\$FIXUP_FLT	000004F8	RG	01
\$\$FOR\$IO_T_V_DS	00000138	RG	01	SSLIB\$FLT_UNDER	00000500	RG	01
\$\$FOR\$IO_W0_R	00000160	RG	01	SSLIB\$FREE_EF	00001468	RG	01
\$\$FOR\$IO_WU_V	00000168	RG	01	SSLIB\$FREE_LUN	00001458	RG	01
\$\$FOR\$IO_W_R	000000F8	RG	01	SSLIB\$FREE_VM	000005F0	RG	01
\$\$FOR\$IO_W_V	00000100	RG	01	SSLIB\$GET_COMMAND	00000510	RG	01

SSLIB\$GET_EF	00001470	RG	01	SSMTH\$ATAND2	00000E28	RG	01
SSLIB\$GET_INPUT	00000508	RG	01	SSMTH\$ATAND_R4	00000E30	RG	01
SSLIB\$GET_LUN	00001460	RG	01	SSMTH\$ATANH	00000ED0	RG	01
SSLIB\$GET_OPCODE	00000780	RG	01	SSMTH\$ATAN_R4	000002B8	RG	01
SSLIB\$GET_VM	000005F8	RG	01	SSMTH\$CABS	00000438	RG	01
SSLIB\$INDEX	00000518	RG	01	SSMTH\$CCOS	00000458	RG	01
SSLIB\$INSV	00000520	RG	01	SSMTH\$CEXP	00000440	RG	01
SSLIB\$INT_OVER	00000528	RG	01	SSMTH\$CLOG	00000448	RG	01
SSLIB\$LOCK	00000530	RG	01	SSMTH\$COS	00000368	RG	01
SSLIB\$MATCHC	00000538	RG	01	SSMTH\$COSD	00000E90	RG	01
SSLIB\$MATCH_COND	00000540	RG	01	SSMTH\$COSD_R4	00000E98	RG	01
SSLIB\$MOVTC	00000548	RG	01	SSMTH\$COSH	00000450	RG	01
SSLIB\$MOVTUC	00000550	RG	01	SSMTH\$COS_R4	00000370	RG	01
SSLIB\$PUT_OUTPUT	00000558	RG	01	SSMTH\$CSIN	00000460	RG	01
SSLIB\$RESERVE_EF	00001478	RG	01	SSMTH\$CSQRT	00000468	RG	01
SSLIB\$REVERT	00000560	RG	01	SSMTH\$DACOS	000002C0	RG	01
SSLIB\$SCANC	00000568	RG	01	SSMTH\$DACOSD	00000E38	RG	01
SSLIB\$SCOPY_DDX	00000570	RG	01	SSMTH\$DACOSD_R7	00000E40	RG	01
SSLIB\$SCOPY_DDX6	00000578	RG	01	SSMTH\$DACOS_R7	000002C8	RG	01
SSLIB\$SCOPY_R_DX	00000580	RG	01	SSMTH\$DASIN	000002C8	RG	01
SSLIB\$SCOPY_R_DX6	00000588	RG	01	SSMTH\$DASIND	000002D0	RG	01
SSLIB\$SFREET_DD	000005A0	RG	01	SSMTH\$DASIND_R7	00000E48	RG	01
SSLIB\$SFREE1_DD6	000005A8	RG	01	SSMTH\$DATAN	00000E50	RG	01
SSLIB\$SFREE_N_DD	000005B0	RG	01	SSMTH\$DATAN2	000002D8	RG	01
SSLIB\$SFREE_N_DD6	000005B8	RG	01	SSMTH\$DATAN_R7	000002D8	RG	01
SSLIB\$SGET1_DD	00000590	RG	01	SSMTH\$DCOSD	000002E0	RG	01
SSLIB\$SGET1_DD_R6	00000598	RG	01	SSMTH\$DCOSD_R7	000002E8	RG	01
SSLIB\$SHOW_VM	00000600	RG	01	SSMTH\$DATAND	00000E58	RG	01
SSLIB\$SIGNAL	000005C8	RG	01	SSMTH\$DATAND2	00000E60	RG	01
SSLIB\$SIG_TO_RET	000005D8	RG	01	SSMTH\$DATAND_R7	00000E68	RG	01
SSLIB\$SKPC	000005E0	RG	01	SSMTH\$DATANH	00000ED8	RG	01
SSLIB\$SPANC	000005E8	RG	01	SSMTH\$DATAN_R7	000002F0	RG	01
SSLIB\$SPAWN	00000778	RG	01	SSMTH\$DCOS	00000328	RG	01
SSLIB\$STAT_VM	000005C0	RG	01	SSMTH\$DCOSD	00000E70	RG	01
SSLIB\$STOP	000005D0	RG	01	SSMTH\$DCOSD_R7	00000E78	RG	01
SSLIB\$PARSE	00000B58	RG	01	SSMTH\$DCOSH	00000470	RG	01
SSMTH\$SAB ALOG_V	00000F48	RG	01	SSMTH\$DCOS_R7	00000330	RG	01
SSMTH\$SAB ATAN_V	00000F50	RG	01	SSMTH\$DEXP	000002F8	RG	01
SSMTH\$ACOS5	00000268	RG	01	SSMTH\$DEXP_R6	00000300	RG	01
SSMTH\$ACOSD	00000E00	RG	01	SSMTH\$DEXP_R7	00000300	RG	01
SSMTH\$ACOSD_R4	00000E08	RG	01	SSMTH\$DLG	00000308	RG	01
SSMTH\$ACOS_R4	00000270	RG	01	SSMTH\$DLG10	00000310	RG	01
SSMTH\$ACOS_R5	00000270	RG	01	SSMTH\$DLG10_R8	00000318	RG	01
SSMTH\$SALOG	00000278	RG	01	SSMTH\$DLG2	00000F28	RG	01
SSMTH\$SALOG10	00000280	RG	01	SSMTH\$DLG_R8	00000320	RG	01
SSMTH\$SALOG10_RS	00000288	RG	01	SSMTH\$DSIN	00000338	RG	01
SSMTH\$SALOG2	00000F20	RG	01	SSMTH\$DSINCOS	00000F00	RG	01
SSMTH\$SALOG_R5	00000290	RG	01	SSMTH\$DSINCOSD	00000F10	RG	01
SSMTH\$SAL 4_OV_PI_V	00000F40	RG	01	SSMTH\$DSINCOSD_R7	00000F18	RG	01
SSMTH\$SASIN	00000298	RG	01	SSMTH\$DSINCOS_R7	00000F08	RG	01
SSMTH\$SASIND	00000E10	RG	01	SSMTH\$DSIND	00000E80	RG	01
SSMTH\$SASIND_R4	00000E18	RG	01	SSMTH\$DSIND_R7	00000E88	RG	01
SSMTH\$SASIN_R4	000002A0	RG	01	SSMTH\$DSINH	00000478	RG	01
SSMTH\$SASIN_R5	000002A0	RG	01	SSMTH\$DSIN_R7	00000340	RG	01
SSMTH\$SATAN	000002A8	RG	01	SSMTH\$DSQRT	00000348	RG	01
SSMTH\$SATAN2	000002B0	RG	01	SSMTH\$DSQRT_R5	00000350	RG	01
SSMTH\$SATAND	00000E20	RG	01	SSMTH\$DTAN	00000480	RG	01

\$SMTH\$DTAND
 \$SMTH\$DTAND_R7
 \$SMTH\$DTANH
 \$SMTH\$DTAN_R7
 \$SMTH\$EXP
 \$SMTH\$EXP_R4
 \$SMTH\$RANDOM
 \$SMTH\$SIN
 \$SMTH\$SINCOS
 \$SMTH\$SINCOSD
 \$SMTH\$SINCOSD_R5
 \$SMTH\$SINCOS_R5
 \$SMTH\$SIND
 \$SMTH\$SIND_R4
 \$SMTH\$SINH
 \$SMTH\$SIN_R4
 \$SMTH\$SQRT
 \$SMTH\$SQRT_R2
 \$SMTH\$SQRT_R3
 \$SMTH\$TAN
 \$SMTH\$TAND
 \$SMTH\$TAND_R4
 \$SMTH\$TAND_R5
 \$SMTH\$TANH
 \$SMTH\$TAN_R4
 \$SMTH\$TAN_R5
 \$SOT\$SSCVT_D_T_R8
 \$SOT\$SSCVT_G_T_R8
 \$SOT\$SSCVT_H_T_R8
 \$SOT\$SSCVT_C_T8
 \$SOT\$SSCVT_L_TI
 \$SOT\$SSCVT_L_TL
 \$SOT\$SSCVT_L_TO
 \$SOT\$SSCVT_L_TZ
 \$SOT\$SSCVT_TB_L
 \$SOT\$SSCVT_TI_L
 \$SOT\$SSCVT_TL_L
 \$SOT\$SSCVT_TO_L
 \$SOT\$SSCVT_TZ_L
 \$SOT\$SSCVT_T_D
 \$SOT\$SSCVT_T_F
 \$SOT\$SSCVT_T_G
 \$SOT\$SSCVT_T_H
 \$SOT\$SSDIVC
 \$SOT\$SSPOWCJ
 \$SOT\$SSPOWDD
 \$SOT\$SSPOWDJ
 \$SOT\$SSPOWDR
 \$SOT\$SSPOWII
 \$SOT\$SSPOWJJ
 \$SOT\$SSPOWRD
 \$SOT\$SSPOWRJ
 \$SOT\$SSPOWRR
 \$SOT\$SSCOPY_DDX
 \$SOT\$SSCOPY_DDX6
 \$SOT\$SSCOPY_R_DX
 \$SOT\$SSCOPY_R_DX6

00000E80 RG	01	\$SOT\$SSFREE1_DD	00000418 RG	01
00000EB8 RG	01	\$SOT\$SSFREE1_DD6	00000420 RG	01
00000488 RG	01	\$SOT\$SSFREEN_DD	00000428 RG	01
00000710 RG	01	\$SOT\$SSFREEN_DD6	00000430 RG	01
00000358 RG	01	\$SOT\$SSGET1_DD	00000408 RG	01
00000360 RG	01	\$SOT\$SSGET1_DD_R6	00000410 RG	01
00000490 RG	01	\$SSTR\$ANALYZE_SDESC	00001490 RG	01
00000378 RG	01	\$SSTR\$ANALYZE_SDESC_R1	00001498 RG	01
00000EE0 RG	01	\$SSTR\$APPEND	00000C60 RG	01
00000EF0 RG	01	\$SSTR\$COMPARE	00000C68 RG	01
00000EF8 RG	01	\$SSTR\$COMPARE_EQL	00000C70 RG	01
00000EE8 RG	01	\$SSTR\$CONCAT	00000800 RG	01
00000EA0 RG	01	\$SSTR\$COPY_DX	00000808 RG	01
00000EA8 RG	01	\$SSTR\$COPY_DX_R8	00000C10 RG	01
00000498 RG	01	\$SSTR\$COPY_R	00000810 RG	01
00000380 RG	01	\$SSTR\$COPY_R_R8	00000C18 RG	01
00000388 RG	01	\$SSTR\$DUPL_CHAR	00000850 RG	01
00000390 RG	01	\$SSTR\$DUPL_CHAR8	00000C20 RG	01
00000720 RG	01	\$SSTR\$FREET_DX	00000818 RG	01
000004A0 RG	01	\$SSTR\$FREE1_DX_R4	00000C28 RG	01
00000EC0 RG	01	\$SSTR\$GET1_DX	00000820 RG	01
00000EC8 RG	01	\$SSTR\$GET1_DX_R4	00000C30 RG	01
00000F38 RG	01	\$SSTR\$LEFT	00000828 RG	01
000004A8 RG	01	\$SSTR\$LEFT_R8	00000C38 RG	01
00000718 RG	01	\$SSTR\$LEN_EXTR	00000830 RG	01
00000F30 RG	01	\$SSTR\$LEN_EXTR_R8	00000C40 RG	01
00000790 RG	01	\$SSTR\$POSITION	00000840 RG	01
00000798 RG	01	\$SSTR\$POSITION_R6	00000C48 RG	01
000007A0 RG	01	\$SSTR\$POS_EXTR	00000838 RG	01
00000758 RG	01	\$SSTR\$POS_EXTR_R8	00000C50 RG	01
00000690 RG	01	\$SSTR\$PREFIX	00000C78 RG	01
000006A8 RG	01	\$SSTR\$REPLACE	00000C80 RG	01
00000698 RG	01	\$SSTR\$REPLACE_R8	00000C88 RG	01
000006A0 RG	01	\$SSTR\$RIGHT	00000848 RG	01
00000760 RG	01	\$SSTR\$RIGHT_R8	00000C58 RG	01
00000210 RG	01	\$SSTR\$TRANSLATE	00000C90 RG	01
00000218 RG	01	\$SSTR\$TRIM	00000858 RG	01
00000220 RG	01	\$SSTR\$UPCASE	00000C98 RG	01
00000228 RG	01	BASS\$BLNK_LINE	***** X	01
00000200 RG	01	BASS\$CB_GET	***** X	01
00000768 RG	01	BASS\$CB_POP	***** X	01
00000660 RG	01	BASS\$CB_PUSH	***** X	01
00000688 RG	01	BASS\$CLOSE_ALL	***** X	01
00000398 RG	01	BASS\$CTRLC_INIT	***** X	01
000003A0 RG	01	BASS\$ERR_INIT	***** X	01
000003A8 RG	01	BASS\$FORMAT_INT	***** X	01
000003C0 RG	01	BASS\$HANDLER	***** X	01
000003B0 RG	01	BASS\$NEXT_LUN	***** X	01
000003C8 RG	01	BASS\$OPEN_ZERO	***** X	01
000003D0 RG	01	BASS\$RECOO_INIT	***** X	01
000003B8 RG	01	BASS\$REC_WSL1	***** X	01
000003D8 RG	01	BASS\$SCALE_L_R1	***** X	01
000003E0 RG	01	BASS\$SCALE_RT	***** X	01
000003E8 RG	01	BASS\$SIGNAL	***** X	01
000003F0 RG	01	BASS\$SIGNAL_IO	***** X	01
000003F8 RG	01	BASS\$STATU_INIT	***** X	01
00000400 RG	01	BASS\$STOP	***** X	01

BASS\$STOP_10
BASS\$STOP_RMS
BASS\$UDF_RL1
BASS\$UDF_WL1
BASSANSI_INPUT
BASSANSI_IO_END
BASSBUFSIZ
BASSCANTYPAHEAD
BASSCCPOS
BASSCHR
BASSCLOSE
BASSCMPD_APP
BASSCMPF_APP
BASSCMPPG_APP
BASSCMPPH_APP
BASSCTRLC
BASSCVT_OUT_D_E
BASSCVT_OUT_D_F
BASSCVT_OUT_D_G
BASSCVT_OUT_F_E
BASSCVT_OUT_F_F
BASSCVT_OUT_G_E
BASSCVT_OUT_G_F
BASSCVT_OUT_G_G
BASSCVT_OUT_H_E
BASSCVT_OUT_H_F
BASSCVT_OUT_H_G
BASSCVT_OUT_P_E
BASSCVT_OUT_P_F
BASSCVT_OUT_P_G
BASSCVT_T_P
BASSDELETE
BASSDSCALE_D_R1
BASSEdit
BASSEND_DEF_R8
BASSEND_DFS_R8
BASSEND_GSB_R8
BASSEND_R8
BASSERL
BASSERN
BASSERR
BASSERROR
BASSERT
BASSFIND
BASSFIND_KEY
BASSFIND_RECORD
BASSFIND_RFA
BASSFREE
BASSGET
BASSGETRFA
BASSGET_KEY
BASSGET_RECORD
BASSGET_RFA
BASSHANDLER
BASSINIT_DEF_R8
BASSINIT_DFS_R8
BASSINIT_GOSUB

BASSPRINT USING
 BASSPUSH_ERR
 BASSPUT
 BASSPUT_COUNT
 BASSPUT_RECORD
 BASSPUT_REC_CNT
 BASSRCTRLC
 BASSREAD
 BASSRECOUNT
 BASSRESTORE
 BASSRESTORE_DAT
 BASSRESTORE_KEY
 BASSRESUME
 BASSRESUME_Z
 BASSRSET
 BASSRSET_R
 BASSSCALE_D_R1
 BASSSCRATCH
 BASSSTATUS
 BASSSTR_D
 BASSSTR_F
 BASSSTR_G
 BASSSTR_H
 BASSSTR_L
 BASSSTR_P
 BASSUNLOCK
 BASSUPDATE
 BASSUPDATE_COUN
 BASSVAL_D
 BASSVAL_F
 BASSVAL_G
 BASSVAL_H
 BASSVAL_L
 BASSVAL_P
 BASSWAIT
 COB\$SHANDLER
 COBSACCEPT
 COBSACC_DATE
 COBSACC_DAY
 COBSACC_DAYWEEK
 COBSACC_TIME
 COBSADDI
 COBSCMPI
 COB\$CVTDI_R7
 COB\$CVTFI_R7
 COB\$CVTID_R7
 COB\$CVTIF_R7
 COB\$CVTIL_R8
 COB\$CVTIP_R9
 COB\$CVTIQ_R8
 COB\$CVTIW_R8
 COB\$CVTIL_I_R8
 COB\$CVTPI_R9
 COB\$CVTPQ_R9
 COB\$CVTQI_R8
 COB\$CVTQP_R9
 COB\$CVTRI_E_R8

*****	X	01	COB\$CVTRIP_R9	*****	X	01
*****	X	01	COB\$CVTRIQ_R8	*****	X	01
*****	X	01	COB\$CVTRIW_R8	*****	X	01
*****	X	01	COB\$CVTRPQ_R9	*****	X	01
*****	X	01	COB\$CVTRQP_R9	*****	X	01
*****	X	01	COB\$CVTTI_R8	*****	X	01
*****	X	01	COB\$CVTWI_R8	*****	X	01
*****	X	01	COB\$DISPLAY	*****	X	01
*****	X	01	COB\$DISP_NO_ADV	*****	X	01
*****	X	01	COB\$DIVI	*****	X	01
*****	X	01	COB\$DIVI_OSE	*****	X	01
*****	X	01	COB\$DIVQ_R8	*****	X	01
*****	X	01	COB\$ERROR	*****	X	01
*****	X	01	COB\$HANDLER	*****	X	01
*****	X	01	COB\$IOEXCEPTION	*****	X	01
*****	X	01	COB\$MULI	*****	X	01
*****	X	01	COB\$MULQ_R8	*****	X	01
*****	X	01	COB\$PAUSE	*****	X	01
*****	X	01	COB\$SUBI	*****	X	01
*****	X	01	FOR\$SCB_GET	*****	X	01
*****	X	01	FOR\$SCB_POP	*****	X	01
*****	X	01	FOR\$SCB_PUSH	*****	X	01
*****	X	01	FOR\$SCB_RET	*****	X	01
*****	X	01	FOR\$ERRSNS_SAV	*****	X	01
*****	X	01	FOR\$FP_MATCH	*****	X	01
*****	X	01	FOR\$IO_BEG	*****	X	01
*****	X	01	FOR\$BACKSPACE	*****	X	01
*****	X	01	FOR\$CLOSE	*****	X	01
*****	X	01	FOR\$CNV_OUT_I	*****	X	01
*****	X	01	FOR\$CNV_OUT_L	*****	X	01
*****	X	01	FOR\$CNV_OUT_O	*****	X	01
*****	X	01	FOR\$CNV_OUT_Z	*****	X	01
*****	X	01	FOR\$CVT_D_TD	*****	X	01
*****	X	01	FOR\$CVT_D_TE	*****	X	01
*****	X	01	FOR\$CVT_D_TF	*****	X	01
*****	X	01	FOR\$CVT_D_TG	*****	X	01
*****	X	01	FOR\$CVT_G_TD	*****	X	01
*****	X	01	FOR\$CVT_G_TE	*****	X	01
*****	X	01	FOR\$CVT_G_TF	*****	X	01
*****	X	01	FOR\$CVT_G_TG	*****	X	01
*****	X	01	FOR\$CVT_H_TD	*****	X	01
*****	X	01	FOR\$CVT_H_TE	*****	X	01
*****	X	01	FOR\$CVT_H_TF	*****	X	01
*****	X	01	FOR\$CVT_H_TG	*****	X	01
*****	X	01	FOR\$DECODE_MF	*****	X	01
*****	X	01	FOR\$DECODE_MO	*****	X	01
*****	X	01	FOR\$DEF_FILE	*****	X	01
*****	X	01	FOR\$DEF_FILE_W	*****	X	01
*****	X	01	FOR\$DELETE	*****	X	01
*****	X	01	FOR\$DELETE_D	*****	X	01
*****	X	01	FOR\$ENCODE_MF	*****	X	01
*****	X	01	FOR\$ENCODE_MO	*****	X	01
*****	X	01	FOR\$ENDFILE	*****	X	01
*****	X	01	FOR\$ERRSNS	*****	X	01
*****	X	01	FOR\$ERRSNS_W	*****	X	01
*****	X	01	FOR\$EXIT	*****	X	01
*****	X	01	FOR\$EXIT_W	*****	X	01

FOR\$FIND	*****	X	01	FOR\$STOP	*****	X	01
FOR\$INI_DES1_R2	*****	X	01	FOR\$UNLOCK	*****	X	01
FOR\$INI_DES2_R3	*****	X	01	FOR\$WRITE_DF	*****	X	01
FOR\$INI_DESC_R6	*****	X	01	FOR\$WRITE_DO	*****	X	01
FOR\$INQUIRE	*****	X	01	FOR\$WRITE_DU	*****	X	01
FOR\$IO_B_R	*****	X	01	FOR\$WRITE_IF	*****	X	01
FOR\$IO_B_V	*****	X	01	FOR\$WRITE_IO	*****	X	01
FOR\$IO_DC_R	*****	X	01	FOR\$WRITE_SF	*****	X	01
FOR\$IO_DC_V	*****	X	01	FOR\$WRITE_SL	*****	X	01
FOR\$IO_D_R	*****	X	01	FOR\$WRITE_SN	*****	X	01
FOR\$IO_D_V	*****	X	01	FOR\$WRITE_SO	*****	X	01
FOR\$IO_END	*****	X	01	FOR\$WRITE_SU	*****	X	01
FOR\$IO_FC_R	*****	X	01	LIB\$ANALYZE_SDESC	*****	X	01
FOR\$IO_FC_V	*****	X	01	LIB\$ANALYZE_SDESC_R2	*****	X	01
FOR\$IO_F_R	*****	X	01	LIB\$AST_IN_PROG	*****	X	01
FOR\$IO_F_V	*****	X	01	LIB\$ATTACH	*****	X	01
FOR\$IO_GC_R	*****	X	01	LIB\$CRC	*****	X	01
FOR\$IO_GC_V	*****	X	01	LIB\$CRC_TABLE	*****	X	01
FOR\$IO_G_R	*****	X	01	LIB\$DEC_OVER	*****	X	01
FOR\$IO_G_V	*****	X	01	LIB\$ESTABLISH	*****	X	01
FOR\$IO_H_R	*****	X	01	LIB\$EXTV	*****	X	01
FOR\$IO_H_V	*****	X	01	LIB\$EXTZV	*****	X	01
FOR\$IO_LU_R	*****	X	01	LIB\$FFC	*****	X	01
FOR\$IO_LU_V	*****	X	01	LIB\$FFS	*****	X	01
FOR\$IO_L_R	*****	X	01	LIB\$FILE_SCAN	*****	X	01
FOR\$IO_L_V	*****	X	01	LIB\$FIND_FILE	*****	X	01
FOR\$IO_T_DS	*****	X	01	LIB\$FIXUP_FLT	*****	X	01
FOR\$IO_T_V_DS	*****	X	01	LIB\$FLT_UNDER	*****	X	01
FOR\$IO_W0_R	*****	X	01	LIB\$FREE_EF	*****	X	01
FOR\$IO_WU_V	*****	X	01	LIB\$FREE_LUN	*****	X	01
FOR\$IO_W_R	*****	X	01	LIB\$FREE_VM	*****	X	01
FOR\$IO_W_V	*****	X	01	LIB\$GET_COMMAND	*****	X	01
FOR\$IO_X_DA	*****	X	01	LIB\$GET_EF	*****	X	01
FOR\$IO_X_NL	*****	X	01	LIB\$GET_INPUT	*****	X	01
FOR\$IO_X_SB	*****	X	01	LIB\$GET_LUN	*****	X	01
FOR\$IO_X_SE	*****	X	01	LIB\$GET_OPCODE	*****	X	01
FOR\$OPEN	*****	X	01	LIB\$GET_VM	*****	X	01
FOR\$PAUSE	*****	X	01	LIB\$INDEX	*****	X	01
FOR\$RAB	*****	X	01	LIB\$INSV	*****	X	01
FOR\$READ_DF	*****	X	01	LIB\$INT_OVER	*****	X	01
FOR\$READ_DO	*****	X	01	LIB\$LOC	*****	X	01
FOR\$READ_DU	*****	X	01	LIB\$MATCHC	*****	X	01
FOR\$READ_IF	*****	X	01	LIB\$MATCH_COND	*****	X	01
FOR\$READ_IO	*****	X	01	LIB\$MOVTC	*****	X	01
FOR\$READ_KF	*****	X	01	LIB\$MOVTUC	*****	X	01
FOR\$READ_KO	*****	X	01	LIB\$PUT_OUTPUT	*****	X	01
FOR\$READ_KU	*****	X	01	LIB\$RESERVE_EF	*****	X	01
FOR\$READ_SF	*****	X	01	LIB\$REVERT	*****	X	01
FOR\$READ_SL	*****	X	01	LIB\$SCANC	*****	X	01
FOR\$READ_SN	*****	X	01	LIB\$SCOPY_DDX	*****	X	01
FOR\$READ_SO	*****	X	01	LIB\$SCOPY_DDX6	*****	X	01
FOR\$READ_SU	*****	X	01	LIB\$SCOPY_RX	*****	X	01
FOR\$REWIND	*****	X	01	LIB\$SCOPY_RX6	*****	X	01
FOR\$REWRITE_SF	*****	X	01	LIB\$SFREET_DD	*****	X	01
FOR\$REWRITE_SO	*****	X	01	LIB\$FREE1_DD6	*****	X	01
FOR\$REWRITE_SU	*****	X	01	LIB\$FREEEN_DD	*****	X	01
FOR\$SECNDS	*****	X	01	LIB\$FREEEN_DD6	*****	X	01

LIB\$SGET1_DD
LIB\$SGET1_DD_R6
LIB\$SHOW_VM
LIB\$SIGNAL
LIB\$SIG_TO_RET
LIB\$SKPC
LIB\$SPANC
LIB\$SPAWN
LIB\$STAT_VM
LIB\$STOP
LIB\$PARSE
MTH\$SAB ALOG
MTH\$SAB ATAN
MTH\$ACOS
MTH\$ACOSD
MTH\$ACOSD_R4
MTH\$ACOS_R4
MTH\$ALOG
MTH\$ALOG10
MTH\$ALOG10_R5
MTH\$ALOG2
MTH\$ALOG_R5
MTH\$AL_4_OV_PI
MTH\$ASIN
MTH\$ASIND
MTH\$ASIND_R4
MTH\$ASIN_R4
MTH\$ATAN
MTH\$ATAN2
MTH\$ATAND
MTH\$ATAND2
MTH\$ATAND_R4
MTH\$ATANH
MTH\$ATAN_R4
MTH\$CABS
MTH\$CCOS
MTH\$CEXP
MTH\$CLOG
MTH\$COS
MTH\$COSD
MTH\$COSD_R4
MTH\$COSH
MTH\$COS_R4
MTH\$CSIN
MTH\$CSQRT
MTH\$DACOS
MTH\$DACOSD
MTH\$DACOSD_R7
MTH\$DACOS_R7
MTH\$DASIN
MTH\$DASIND
MTH\$DASIND_R7
MTH\$DASIN_R7
MTH\$DATAN
MTH\$DATAN2
MTH\$DATAND
MTH\$DATAND2

★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DATAND_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DATANH
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DATAN_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DCOS
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DCOSD
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DCOSD_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DCOSH
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DCOS_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DEXP
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DEXP_R6
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DLOG
00001650 R	R	01	MTH\$DLOG10
00001750 R	R	01	MTH\$DLOG10_R8
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DLOG2
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DLOG_R8
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSIN
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSINCOS
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSINCOSD
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSINCOSD_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSINCOS_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSIND
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSIND_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSINH
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSIN R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSQRT
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DSQRT_R5
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DTAN
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DTAND
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DTAND_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DTANH
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$DTAN_R7
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$EXP
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$EXP_R4
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$RANDOM
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SIN
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SINCOS
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SINCOSD
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SINCOSD_R5
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SINCOS_R5
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SIND
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SIND_R4
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SINH
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SIN R4
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SQRT
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SQRT_R2
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$SQRT_R3
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$TAN
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$TAND
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$TAND_R4
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$TAND_R5
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$TANH
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$TAN R4
★ ★ ★ ★ ★ ★ ★	X	01	MTH\$TAN_R5
★ ★ ★ ★ ★ ★ ★	X	01	OTSSSCVT_D_T_R8
★ ★ ★ ★ ★ ★ ★	X	01	OTSSSCVT_G_T_R8
★ ★ ★ ★ ★ ★ ★	X	01	OTSSSCVT_H_T_R8
★ ★ ★ ★ ★ ★ ★	X	01	OTSSCVT_C_TB

VMSS\$VECTOR Symbol table

- Define entry vectors for VMSRTL

L 13

16-SEP-1984 02:15:59 VAX/VMS Macro V04-00
6-SEP-1984 11:48:04 [VMSRTL.SRC]VMSVECTOR.MA

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VMS\$VECTOR
Psect synopsis

- Define entry vectors for VMSRTL

M 13

16-SEP-1984 02:15:59 VAX/VMS Macro V04-00
6-SEP-1984 11:48:04 [VMSRTL.SRC]VMSVECTOR.MAR;1

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+-----+
! Psect synopsis !
+-----+

PSECT name

. ABS
\$VMSSVECTOR

Allocation PSECT No.

Allocation	PSECT No.	Attributes
00000000 (0.) 00 (0.)	NOPIC	USR
00001787 (6023.) 01 (1.)	PIC	USR

CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE
CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	PAGE

+-----+
! Performance indicators !
+-----+

Phase

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.09	00:00:00.72
Command processing	135	00:00:00.60	00:00:03.85
Pass 1	799	00:01:03.40	00:01:50.18
Symbol table sort	0	00:00:01.57	00:00:02.25
Pass 2	475	00:00:17.00	00:00:41.89
Symbol table output	1	00:00:00.79	00:00:01.75
Psect synopsis output	0	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	1441	00:01:23.48	00:02:40.68

The working set limit was 2400 pages.

319752 bytes (625 pages) of virtual memory were used to buffer the intermediate code.

There were 60 pages of symbol table space allocated to hold 1092 non-local and 0 local symbols.

3082 source lines were read in Pass 1, producing 93 object records in Pass 2.

3 pages of virtual memory were used to define 2 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name

\$_255\$DUA28:[SYSLIB]STARLET.MLB:2

Macros defined

0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/LIS=LI\$:\$:VMSVECTOR/OBJ=OBJ\$:\$:VMSVECTOR MSRC\$:\$:VMSVECTOR/UPDATE=(ENH\$:\$:VMSVECTOR)

0438 AH-BT13A-SE
VAX/VMS V4.0

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VMSRTL

VMSRTL
MAP

VMSVECTOR
LIS